

## **Federal Operating Permit Article 1**

Supersedes May 31, 2004 permit (issued May 11, 2004)

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300, and 9 VAC 5-140-10 through 9 VAC 5-140-900 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Meadwestvaco Packaging Resource Group	Registration Number:	20328
Facility Name:	Meadwestvaco Packaging Resource Group	State-City-Plant No.:	51-580-0003
Facility Location:	104 East Riverside Street Covington, Virginia	Permit Number:	VA-20328

May 31, 2004; Modified December 13, 2005  
Effective Date

May 30, 2009  
Expiration Date

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Robert G. Burnley	Signature Date
Director, Department of Environmental Quality	

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## **I. Facility Information**

### **Permittee**

Meadwestvaco Packaging Resource Group  
104 East Riverside Street  
Covington, VA 24426

### **Responsible Official**

Mark R. George  
Vice President Covington Operations

### **Facility**

Meadwestvaco Packaging Resource Group  
104 East Riverside Street  
Covington, VA 24426

### **Contact Person**

James Taylor  
Supervisor Environmental Regulations  
540-969-5385

### **NOx Budget Trading Authorized Account Representative**

At Meadwestvaco Packaging Resource Group, Covington, VA  
Vice President Covington Operations  
NOx Budget Trading Alternate Authorized Account Representative:  
Supervisor Environmental Regulations

**Registration Number:** 20328

**State-City-Plant Number:** 51-580-0003

**ORIS Code/EIA Facility ID:** 50900

**NATS Facility Identification Number:** 050900

**Facility Description:** SIC number 2631/ 2611 – This facility is a large integrated kraft pulp and paperboard mill. Pulp is produced from wood by the kraft pulping process. All pulp produced is bleached with a modern elemental chlorine free (ECF) bleaching process. Prior to bleaching, most of the pulp is processed in an oxygen delignification system. The facility is partially through a multi-year major expansion and modernization project.

The facility is a Title V major emission source of SO<sub>2</sub>, NO<sub>x</sub>, CO, PM, PM-10, VOC, and Hazardous Air Pollutants (HAPS). This source is located in an attainment area for all pollutants, and is a PSD major source for SO<sub>2</sub>, NO<sub>x</sub>, CO, Particulate Matter, PM-10, VOC, Total Reduced Sulfur (TRS), reduced sulfur compounds, fluorides, and sulfuric acid mist. PSD New Source Review (NSR) permitting has been applicable only to NO<sub>x</sub> and CO emission increases, and that was only in the 1988 NSR permit.

***NSR Permits:***

The following NSR permits to construct or modify and operate apply: (1) October 12, 1988 expansion permit (PSD for NOx and CO) as amended in 1995 and October 2003; and (2) November 3, 2003 permit as amended September 20, 2005, superseding all earlier permits except the 1988 permit, and includes the 1995 expansion permit as superseded October 29, 1999.

**Applicable Regulations included in this Permit: State, NSPS, MACT:**

Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 10 et seq. (9 VAC 5-10-10 et seq.) (many sections)

NSPS 40 CFR 60 Subpart Db, New and Modified Industrial Boilers

NSPS 40 CFR 60 Subpart BB, New and Modified Kraft Pulp Mills

MACT 40 CFR 63 Subpart S, HAPS from Pulp and Paper Industry (MACT I)

MACT 40 CFR 63 Subpart MM, HAPS from Chemical Recovery Combustion Sources at Pulp Mills (MACT II)

MACT 40 CFR 63 Subpart DDDDD, HAPS from Industrial, Commercial and Institutional Boilers and Process Heaters.

NOx Budget Trading Program (NOx SIP Call) - Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 140 Part I, NOx Budget Trading Program (9 VAC 5-140-10 et seq.) The program applies to all six power boilers. The budget trading part of this program begins May 31, 2004.

***Major equipment groups*** in this permit are consistent with the equipment groupings in the various MACT regulations for this facility, and are organized as follows:

(1) the six power boilers, (2) the unbleached pulp mill [except for only the lime kilns and recovery furnaces and their smelt dissolving tanks, (3) the two lime kilns and the two recovery furnaces and their smelt dissolving tanks, (4) pulp bleaching and the chlorine dioxide plant to produce bleach, (5) the five paper machines to produce paperboard from pulp, and (6) miscellaneous, which includes the wood yard, haul roads, the process waste water treatment plant (WTP), landfills, etc.

**Greater details of major equipment and processes** in the permit order are listed below:

***Power boilers:*** The plant has six (6) power boilers. No. 6 and No. 9 boilers burn coal, while No. 7 and No. 8 boilers burn coal and bark/woodwaste. No. 10 boiler burns natural gas, and Nos. 2, 4, and 6 fuel oil. No. 11 boiler burns natural gas and No. 2 fuel oil. The plant's primary fuels are coal and to a lesser extent bark/woodwaste, which are supplemented only as needed with natural gas and fuel oil. Each of these boilers exceeds 250 million Btu/hr capacity. The only power boiler constructed under NSR permits and NSPS is No. 11 (NSPS Db) because it is the only one installed after the NSR permitting and boiler NSPS applicability dates. Boilers Nos. 6 - 10 were constructed well before 1972, and have a few limitations added

by subsequent NSR permits to reduce certain emissions for the plant to net certain pollutants out of the need for PSD permitting. The NOx Budget Trading Program applies to all 6 power boilers. MACT DDDDD for Industrial, Commercial and Institutional Boilers and Process Heaters applies to Power Boilers No. 6, 7, 8, 9, 10, and 11. This MACT considers each of these boilers as existing sources, which have a compliance date of September 13, 2007.

***The Unbleached Pulp Mill*** section of this permit is the large group of equipment making up the unbleached pulp mill, except for the lime kilns and recovery furnaces and their smelt dissolving tanks which are subject to a different MACT MM.

The equipment in this group includes: wood pulping digesting (currently (2003) 18 of proposed 26 digesters)/ blow tank/ accumulator system, turpentine recovery system, pulp deknottng and screening systems, pulp brown stock washer systems, pulp oxygen delignification systems, waste heat evaporator system, multiple effect evaporator systems (MEE), indirect contact black liquor concentrator systems, pulping process non-condensable gas (NCG) system/ waste gas enclosures and closed vent systems, NCG/ waste gas treatment systems which include treatment by combustion in lime kilns or waste gas incinerators, the waste gas incinerator systems, and pulping foul concentrate system including closed collection system and treatment systems. These treatment systems include foul concentrate steam stripper systems and combustion of the stripped gas in lime kilns or waste gas incinerator systems. The primary pollutants of concern that are emitted from these pulping processes/ systems are VOC HAPS, VOCs, and TRS, which are now extensively controlled primarily by their collection and treatment by combustion. Other equipment in this section includes lime storage bins, slakers/causticizers, green liquor and white liquor clarifier systems, and lime mud systems.

MACT S applies to most of this equipment. It requires most waste gases including non-condensable gases to be collected and treated and most waste gases dissolved in foul condensates to be stripped and treated. The primary treatment used by this mill is combustion, which is accomplished in lime kilns and/or waste gas incinerators. The major emission sources in this equipment group are already required to comply with this MACT. But for various minor emission sources as specified in this MACT, the MACT and this permit gives the mill until April 17, 2006 to decide upon and implement control strategies to comply with the MACT.

NSPS BB and the 2 NSR expansion permits to construct or modify pre-dated MACT S and apply to most major emission sources in this equipment group, including pulping system digesting and related processes, the kraft pulping non-condensable gas (NCG) system to collect and burn NCG gases, the kraft pulping process foul condensate system including steam stripping and combusting these stripped waste gases, and D-line brown stock washer.

***The Recovery Section*** of this permit consists of only the emission sources specified in 40 CFR 63 MACT Subpart MM - Chemical Recovery Combustion Sources at Kraft...Pulp Mills. These emission sources are the 2 Lime Kilns, the 2 Recovery Furnaces and their Smelt Dissolving Tanks. Although the plant organization thinks of more equipment in Recovery, this permit equipment grouping follows the current pulp mill MACTs by splitting only the equipment specified in MACT MM out of the remainder of the overall Unbleached Pulp Mill.

MACT MM applies to all this named equipment. All of this equipment is considered to be existing equipment for this MACT. The MACT compliance date is March 13, 2004; its requirements are included in this permit as effective on this future compliance date. NSPS BB applies to the No. 2 Recovery Furnace and its Smelt Dissolving Tank, the No. 2 Lime Kiln, and the proposed modified No. 1 Lime Kiln when it is modified (not currently in 2003). The 1988 NSR permit applies to the No. 2 Recovery Furnace and its Smelt Dissolving Tank. The November 2003 NSR permit applies to both Recovery Furnaces and especially both Lime Kilns.

**Bleaching:** All the unbleached kraft pulp is bleached on-site in a modern Elemental Chlorine Free (ECF) and hypochlorite free bleaching process. The process primarily uses chlorine dioxide ( $\text{ClO}_2$ ) for bleaching. Before bleaching, most of the unbleached kraft pulp goes through the Unbleached Pulp Mill's modern oxygen delignification process to minimize the amount of bleaching required.

The current bleach lines are the A and B "unit" bleach lines and the C bleach line. The proposed A and D bleach lines are permitted but not yet constructed (2003). The chlorine dioxide bleaching agent is made on-site in the chlorine dioxide plant. This plant consists of chlorine dioxide plants 1 and 2 which contain three chlorine dioxide generators.

MACT S applies to all bleach lines, but not the chlorine dioxide plant. This MACT's compliance option used at this facility reinforces the NSR prohibition against using elemental chlorine and hypochlorite in any bleach line. Both NSR permits address chlorine dioxide manufacturing and all bleaching.

**Paper machines:** The bleached pulp is then made into paperboard on-site on the four (4) active paper machines (Nos. 1, 2, 5, and 8). Temporarily inactive paper machine No. 6 may also be used. The machines convert bleached pulp into paperboard. In this process, coatings are applied to the paperboard to produce certain desired characteristics. The coatings are mostly clay based but may contain certain organic compounds.

**Miscellaneous:** Includes woodyard, process waste treatment plant (WTP), landfills, haul roads, etc. The woodyard receives and stores (a) wood chips and (b) logs which the woodyard debarks and chips. The woodchips are the raw material for the pulping digesters. The bark is power boiler fuel. The process waste water treatment plant treats the mill's process waste water and discharges into the Jackson river. The NSR permits address some of this section.



## II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Powerhouse (Fuel Burning Equipment)</b>							
PWR006	PWRA	No. 6 Boiler (coal primary fuel)	550 MMBTU/hr	ESP, SO <sub>2</sub> scrubber, low NO <sub>x</sub> burners	PHCD01, PHCD07	PM, SO <sub>2</sub> , NO <sub>x</sub>	10/12/88, 11/3/03
PWR007	PWRA	No. 7 Boiler (coal/bark/wood p.f.)	440 MMBTU/hr	ESP, SO <sub>2</sub> scrubber, flue gas recirculation	PHCD02, PHCD07	PM, SO <sub>2</sub> , NO <sub>x</sub>	10/12/88, 11/3/03
PWR008	PWRA	No. 8 Boiler (coal/bark/wood p.f.)	580 MMBTU/hr	ESP, SO <sub>2</sub> scrubber, flue gas recirculation	PHCD03, PHCD07	PM, SO <sub>2</sub> , NO <sub>x</sub>	10/12/88, 11/3/03
PWR009	PWRA	No. 9 Boiler (coal p.f.)	807 MMBTU/hr	ESP, SO <sub>2</sub> scrubber, low NO <sub>x</sub> burners	PHCD04, PHCD07	PM, SO <sub>2</sub> , NO <sub>x</sub>	10/12/88, 11/3/03
PWR010	PWRB	No. 10 Boiler (natural gas p.f.)	330 MMBTU/hr				10/12/88
PWR011	PWRC	No. 11 Boiler (natural gas p.f.)	425 MMBTU/hr	Low NO <sub>x</sub> burners, FGR		NO <sub>x</sub>	11/3/03
PWR012		Coal Handling System					
PWR013		Woodwaste Handling System					
<b>Unbleached Pulp Mill (except recovery furnaces, smelt tanks, and lime kilns)</b>							
UPM002		Digester Charging System	3800 ADTP/day				
UPM003		Batch Digesters 1-26 & System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
UPM004		Turpentine System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
UPM005		Knot Handling System	3800 ADTP/day	HVLC****		HAPs	

UPM010		A Line Brownstock Washer System	1200 ODT/day	HVLC****		VOC, TRS, HAPs	
UPM011		A Line High Density Storage					
UPM012		A Line Delignification Blow Tank	1200 ODT/day	NCGS/HVLC***	NCGS	HAPs, VOC	11/3/03
UPM013		A Line Post Oxygen Wash System	1200 ODT/day	HVLC****		HAPs, VOC	11/3/03
UPM014		A Line Screening System	1200 ODT/day	HVLC****		HAPs, VOC	11/3/03
UPM020		C Line Brownstock Washer System	1200 ODT/day	HVLC****		HAPs, VOC	
UPM021		C Line High Density Storage					
UPM022		C Line Delignification Blow Tank	1200 ODT/day	NCGS/HVLC***	NCGS	HAPs, VOC	11/3/03
Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Unbleached Pulp Mill (except recovery furnaces, smelt tanks, and lime kilns) continued</b>							
UPM023		C Line Post Oxygen Wash System	1200 ODT/day	HVLC****		HAPs, VOC	11/3/03
UPM024		C Line Screening System	1200 ODT/day	HVLC****		HAPs, VOC	11/3/03
UPM030		D Line Brownstock Washer System	1200 ODT/day	HVLC****/ Process control		VOC, TRS, HAPs	10/12/88
UPM031		D Line High Density Storage	1200 ODT/day				
UPM032		D Line Delignification Blow Tank	1200 ODT/day	NCGS/HVLC***		HAPs, VOC	10/12/88, 11/3/03
UPM033		D Line Post Oxygen Wash System	1200 ODT/day	HVLC****		HAPs, VOC	10/12/88, 11/3/03
UPM034		D Line Screening System	1200 ODT/day	HVLC****		HAPs, VOC	10/12/88, 11/3/03
UPM040		Unbleached Stock Storage	3800 ADTP/day				
UPM042		Shower Water System	3800 ADTP/day				
REC004		No. 1 Recovery Salt Cake Mix Tank	2627 TBLS/day				
REC006		Oxidized Black Liquor Storage	2627 TBLS/day				
REC012		No. 2 Recovery Salt Cake Mix Tank	3000 TBLS/day				
REC020		Black Liquor Storage	5627 TBLS/day				
REC021		Light Liquor Storage	5627 TBLS/day				
REC030		Weak Wash Storage	1220 TCaO/day				
REC032		Green Liquor Clarifier System	1220 TCaO/day				11/3/03
REC034		No. 16 Slaker/Causticizers (16 ft)	413 TCaO/day	Condenser/enclosed		PM	10/12/88
REC035		No. 20 Slaker/Causticizers (20 ft)	653 TCaO/day	Scrubber		PM	10/12/88
REC036		White Liquor Clarifier System	1220 TCaO/day				11/3/03

REC037		White Liquor Oxidation	1220 TCaO/day				
REC039		No. 24 Slaker/Causticizer (24 ft)	1220 TCaO/day	Condenser/vented		PM	11/3/03
REC040		Lime Mud Storage	1220 TCaO/day				
REC041		Lime Mudwasher System	1220 TCaO/day				11/3/03
REC043		Lime Mudfilter System	1220 TCaO/day				11/3/03
REC044		Lime Mudfilter Vacuum Separators	1220 TCaO/day				11/3/03
REC048		No. 1, 2, & 3 Lime Bins	310 TCaO/hr	Dust collector		PM	11/3/03
Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Unbleached Pulp Mill (except recovery furnaces, smelt tanks, and lime kilns) continued</b>							
REC049		No. 4 & 5 Lime Bins	420 TCaO/hr	Dust collector		PM	11/3/03
REC050		Dregs Washer System	1220 TCaO/day				11/3/03
REC051		Dregs Filter System	1220 TCaO/day				11/3/03
REC052		Grits Washer System	1220 TCaO/day				
REC060		Recovery Accumulator	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	11/3/03
REC061		Waste Heat Evaporator System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
REC062		No 1, 2, 3 Multiple Effect Evaporators	2627 TBLS/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
REC063		No. 4 Multiple Effect Evaporator	3000 TBLS/day	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
REC064		No. 1 Condensate Stripper	600 gpm	NCGS/LVHC**	NCGS	VOC, TRS, HAPs	10/12/88, 11/3/03
REC065		No. 1 Incinerator	2600 ADTP/day	Scrubber (NCGS/LVHC**)	NCGS	SO <sub>2</sub> , VOC, TRS	10/12/88, 11/3/03
REC066		No. 4 Condensate Tank	3800 ADTP/day				
REC067		No. 2 & 3 Incinerators (proposed)	3800 ADTP/day	Scrubber (NCGS/LVHC**)	NCGS	VOC, TRS	11/3/03
REC069		No. 2 Condensate Stripper (proposed)		NCGS/LVHC**	NCGS	VOC, TRS	11/3/03
REC070		LVHC Closed Vent System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS	10/12/88, 11/3/03
REC071		Condensate Collection System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS	10/12/88, 11/3/03
REC072		HVLC Closed Vent System	3800 ADTP/day	NCGS/LVHC**	NCGS	VOC, TRS	
<b>Recovery Furnaces, Smelt Tanks, and Lime Kilns</b>							

REC001		No. 1 Recovery Furnace	2627 TBLS/day	ESP		PM	10/12/88, 11/3/03
REC002		No. 1 Recovery Smelt Dissolving Tank – Upriver	2627 TBLS/day	Scrubber		PM, TRS	10/12/88
REC003		No. 1 Recovery Smelt Dissolving Tank – Downriver	2627 TBLS/day	Scrubber		PM, TRS	10/12/88
REC005		BLOX Tower - #1 Recovery Furnace	2627 TBLS/day				
Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Recovery Furnaces, Smelt Tanks, and Lime Kilns continued</b>							
REC068		Black Liquor Concentrator (RF#1)	2627 TBLS/day	NCGS/LVHC**	NCGS	VOC, TRS	11/3/03
REC010		No. 2 Recovery Furnace	3000 TBLS/day	ESP		PM	10/12/88, 11/3/03
REC011		No. 2 Recovery Smelt Tank	3000 TBLS/day	Scrubber		PM, TRS, SO <sub>2</sub>	10/12/88
REC045		No. 1 Lime Kiln (before modification)	347 TCaO/day	venturi scrubber		PM, TRS, SO <sub>2</sub>	10/12/88, 11/3/03
REC045		No. 1 Lime Kiln (after proposed)	470 TCaO/day	ESP, SO <sub>2</sub> scrubber		PM, TRS, SO <sub>2</sub>	10/12/88, 11/3/03
REC047		No. 2 Lime Kiln	720 TCaO/day	ESP, venturi scrubber		PM, TRS, SO <sub>2</sub>	11/3/03
<b>Bleaching</b>							
BPM001		A Unit Bleach Line	1200 ODT/day	HAPS Scrubber		HAPS	11/3/03
BPM002		B Unit Bleach Line	1400 ODT/day	HAPS Scrubber		HAPS	11/3/03
BPM003		Bleach Room Unbleached Stock Storage	3800 ADT/d				
BPM004		Bleach Room Deckers	1200 ODT/day				
BPM005		Bleached Stock Storage	3800 ADT/d				
BPM006		Brown Water System	3800 ADT/d				
BPM011		A Bleach Line (proposed)	1200 ODT/day	HAPS Scrubber		HAPS	11/3/03
BPM012		C Bleach Line	1200 ODT/day	HAPS Scrubber		HAPS	11/3/03
BPM013		D Bleach Line (proposed)	1200 ODT/day	HAPS Scrubber		HAPS	11/3/03
CLO001		No. 1 ClO <sub>2</sub> Plant	30 tons/day				
CLO002		ClO <sub>2</sub> Liquor System	80 tons/day				

CLO003		Methanol Tank					
CLO004		No. 2 ClO2 Plant	80 tons/day				11/3/03
<b>Paper Machines</b>							
PM1001		No. 1 Paper Machine	2000 ADTFP/day				
PM1002		No. 1 Paper Machine Stock Storage	2000 ADTFP/day				
PM1003		No. 1 Paper Machine Decker	2000 ADTFP/day				
PM2001		No. 2 Paper Machine	2000 ADTFP/day				11/3/03
PM2002		No. 2 Paper Machine Stock Storage	2000 ADTFP/day				
Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Paper Machines continued</b>							
PM2003		No. 2 Paper Machine Decker	2000 ADTFP/day				
PM5001		No. 5 Paper Machine	1000 ADTFP/day				
PM5002		No. 5 Paper Machine Stock Storage	1000 ADTFP/day				
PM5003		No. 5 Paper Machine Decker	1000 ADTFP/day				
PM6001		No. 6 Paper Machine	1000 ADTFP/day				
PM6002		No. 6 Paper Machine Stock Storage	1000 ADTFP/day				
PM6003		No. 6 Paper Machine Decker	1000 ADTFP/day				
PM8001		No. 8 Paper Machine	1000 ADTFP/day				
PM8002		No. 8 Paper Machine Stock Storage	1000 ADTFP/day				
PM8003		No. 8 Paper Machine Decker	1000 ADTFP/day				
PPP002		Purchased Pulp Storage					
<b>Miscellaneous Sources</b>							
WYD003		Slasher	10, 000 ton/day				
WYD004		Debarking Drum	10, 000 ton/day				
WYD005		Chipper	10, 000 ton/day				
WYD006		Chip Screening	10, 000				

			ton/day				
WTP001		Mix Tanks	35 Mgal/day				
WTP002		Primary Clarifiers	35 Mgal/day				
WTP003		Cooling Tower	35 Mgal/day				
WTP004		Aeration Basin	35 Mgal/day				
WTP007		Sludge Dewatering System	35 Mgal/day				
WTP011		No. 1, 2, 3 & 4 Landfills					
WTP012		No. 5 Landfill (proposed)					
WVC002		General Mill Roads					11/3/03
WVC003		Landfill Haul Roads					11/3/03
WVC004		Gasoline Storage					
Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Miscellaneous Sources continued</b>							
WVC005		Air Conditioning System					
WVC006		Woodyard Haul Roads					11/3/03

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

\*\*NCGS/LVHC control device denotes the non-condensable gas system routing low volume, high concentration gasses to combustion control

\*\*\*NCGS/HVLC control device denotes the non-condensable gas system routing high volume, low concentration gasses to combustion control

\*\*\*\*HVLC denotes that the equipment is subject to a future applicable requirement for control of high volume, low concentration gasses

Industry abbreviations:

ADTP/d = Air Dried Tons of Pulp per day

ODTP/d = Oven Dried Tons of Pulp per day

TBLS/d = Tons of Black Liquor Solids per day

TCaOd = Tons of Lime per day

ODT/d = Oven Dried Tons (of paper) per day

ADTFP/d = Air Dried Tons of Finished Paper per day

### III. Powerhouse Requirements

#### A. Limitations

1. **Fuel** - The approved fuel for the No. 6 Boiler (**PWR006**) and the No. 9 Boiler (**PWR009**) is coal (with natural gas or No. 2 fuel oil for start-up and flame stabilization). A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110)
2. **Fuel** - The approved fuels for the No. 7 Boiler (**PWR007**) and the No. 8 Boiler (**PWR008**) are coal, bark, and wood waste (with natural gas or No. 2 fuel oil for start-up and flame stabilization). A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110)
3. **Emission Controls** – Nitrogen oxide emissions from the No. 6 Boiler (**PWR006**) shall be controlled by low NO<sub>x</sub> burners.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 14 of the 11/3/03 Permit)
4. **Emission Controls** – Nitrogen oxide emissions from the No. 7 Boiler (**PWR007**) and the No. 8 Boiler (**PWR008**) shall be controlled by flue gas recirculation.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 15 of the 11/3/03 Permit)
5. **Emission Controls** – Nitrogen oxide emissions from the No. 9 Boiler (**PWR009**) shall be controlled by low NO<sub>x</sub> burners.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 16 of the 11/3/03 Permit)
6. **Emission Controls** – Sulfur dioxide emissions from the No. 6 Boiler (**PWR006**), the No. 7 Boiler (**PWR007**), the No. 8 Boiler (**PWR008**), and the No. 9 Boiler (**PWR009**) shall be controlled by flue gas desulfurization scrubbing. The scrubbers shall be provided with adequate access for inspection. All bleach room extraction filtrate waste and boiler house demineralize backwash water that would otherwise be sewered shall be used in the SO<sub>2</sub> FGD scrubbers to reduce SO<sub>2</sub> emissions below the allowable limits in Condition III-A-10, as much as practicable, until use of RTDM modeling using on-site meteorological data is approved by EPA or compliance with the SO<sub>2</sub> ambient standards is demonstrated by an EPA approved alternate model.  
(9 VAC 5-80-110, 9 VAC 5-50-1100, 9 VAC 5-80-1700, 9 VAC 5-40-930 and Condition I-27 of the 10/12/88 Permit)
7. **Emission Controls** - Particulate emissions from the No. 6 Boiler (**PWR006**), the No. 7 Boiler (**PWR007**), the No. 8 Boiler (**PWR008**), and the No. 9 Boiler (**PWR009**) shall be controlled by electrostatic precipitators.  
(9 VAC 5-80-110 and 9 VAC 5-40-900)

8. **Emission Limits** - Emissions from the operation of the No. 6 Boiler shall not exceed the limits specified below:

Nitrogen Oxides (as NO<sub>2</sub>)      330.0 lbs/hr                      1000.0 tons/yr

(9 VAC 5-80-110, 9 VAC 5-80-1700, 9 VAC 5-80-1100, and Condition 69 of the 11/3/03 Permit)

9. **Emission Limits** –Emissions from the operation of the No. 9 Boiler (**PWR009**) shall not exceed the limits specified below:

Nitrogen Oxides              387.4 lbs/hr                      1200.0 tons/yr  
(as NO<sub>2</sub>)

(9 VAC 5-80-110, 9 VAC 5-80-1700, 9 VAC 5-80-1100, and Condition 70 of the 11/3/03 Permit)

10. **Emission Limits** - Emissions from the operation of the No. 6-9 Boilers (**PWR006-9**) shall not exceed the limits specified below:

Sulfur Dioxide              3,300 lbs/hr (3-hr avg)                      9,132.3 tons/yr  
                                         2,085 lbs/hr annual average

Sulfuric Acid<sup>a</sup>                      55.0 lbs/hr                      126.9 tons/yr

<sup>a</sup> Based on emission factor 0.0139 lb/lb SO<sub>2</sub> per NCASI SARA Handbook 95, and hourly 1.2 factor.

These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded.

(9 VAC 5-80-110, 9VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 56 of the 11/3/03 Permit)

11. **Emission Limits** – Sulfur dioxide emissions from the No. 6-9 Boilers (**PWR006-9**) combined stack shall not exceed the smallest of the following:

- a. 2.64 pounds per million BTU input hourly emission rate.
- b. The SO<sub>2</sub> emission limits in Condition III-A-10.
- c. The actual SO<sub>2</sub> emissions resulting from the sulfur in the fuels burned.  
(9 VAC 5-80-110 and 9 VAC 5-40-930)

12. **Emission Limits** - Particulate emissions from the No. 6-9 Boilers (**PWR006-9**) combined stack shall not exceed 0.140 pounds per million BTU input.  
(9 VAC 5-80-110 and 9 VAC 5-40-900)

13. **Visible Emission Limit** - Visible emissions from the combined stack for the No. 6-9 Boilers (**PWR006-9**) shall not exceed twenty percent (20%) opacity except during



one six-minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity.

(9 VAC 5-80-110 and 9 VAC 5-40-940)

14. **Fuel** - The approved fuels for the No. 10 Boiler (**PWR010**) are natural gas, No. 2 fuel oil, No. 4 fuel oil, and No. 6 fuel oil. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110)

15. **Fuel Throughput** - The No. 10 Boiler (**PWR010**) shall consume no more than 1400 gallons of No. 6 fuel oil per hour, except as allowed in the next condition.  
(9 VAC 5-80-110, 9 VAC 5-80-1100 and Condition I-7 of the 10/12/88 Permit)

16. **Fuel Specification** - The average sulfur content of the No. 6 fuel oil to be burned in the No. 10 Boiler (**PWR010**) shall not exceed one percent by weight per shipment. The throughput of oil through the No. 10 Boiler may increase beyond the limits of the previous condition in proportion to the sulfur decrease below one percent (1.0%) as long as compliance with the sulfur dioxide limit in the next condition is maintained. The permittee shall maintain records, including certifications, of all oil shipments purchased. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, and Condition I-32 of the 10/12/88 Permit)

17. **Emission Limits** - Emissions from the operation of the No. 10 Boiler (**PWR010**) shall not exceed the limits specified below:

Sulfur Dioxide          220 lbs/hr

(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-30-30 and Condition I-11 of the 10/12/88 Permit)

18. **Emission Limits** – Sulfur dioxide emissions from the No. 10 Boiler (**PWR010**) shall not exceed the smallest of the following:

- a. 2.64 pounds per million BTU input hourly emission rate.
- b. The SO<sub>2</sub> emission limits in Condition III-A-17.
- c. The actual SO<sub>2</sub> emissions resulting from the sulfur in the fuels burned.  
(9 VAC 5-80-110 and 9 VAC 5-40-930)

19. **Emission Limits** - Particulate emissions from the No. 10 Boiler (**PWR010**) shall not exceed 0.140 pounds per million BTU input.  
(9 VAC 5-80-110 and 9 VAC 5-40-900)

20. **Visible Emission Limit** - Visible emissions from the No. 10 Boiler (**PWR010**) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity.  
(9 VAC 5-80-110 and 9 VAC 5-40-940)

21. **Emission Controls** - Nitrogen dioxide emissions from the No. 11 Boiler (**PWR011**) shall be controlled by low-NO<sub>x</sub> burners and flue gas recirculation. The No. 11 Boiler shall be provided with adequate access for inspection.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 21 of the 11/3/03 Permit)
22. **Fuel** - The approved fuels for the No. 11 Boiler (**PWR011**) are natural gas and No. 2 fuel oil. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110, 9 VAC 5-80-1100 and Condition 42 of the 11/3/03 Permit)
23. **Fuel Throughput** - The No. 11 Boiler (**PWR011**) shall consume no more than 3723 x 10<sup>6</sup> cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12 month period, except as specified in the next condition.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 43 of the 11/3/03 Permit)
24. **Fuel Throughput** - The No. 11 Boiler (**PWR011**) annual consumption limitation for natural gas specified in the previous condition shall be reduced 276 cubic feet for every 1 gallon of No. 2 fuel oil consumed.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 44 of the 11/3/03 Permit)
25. **Fuel Throughput** - The No. 11 Boiler (**PWR011**) shall consume no more than 2,200 thousand gallons of No. 2 fuel oil per year, calculated monthly as the sum of each consecutive 12 month period. The annual capacity factor for No. 2 fuel oil shall not exceed 10 percent.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 45 of the 11/3/03 Permit)
26. **Fuel Specification** - The maximum sulfur content of the No. 2 fuel oil to be burned in the No. 11 Boiler (**PWR011**) shall not exceed 0.2 percent by weight per shipment. The permittee shall maintain records, including certifications, of all oil shipments purchased. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 46 of the 11/3/03 Permit)

**27. Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of No. 2 fuel oil. If fuel storage is separated for various units, this requirement shall apply only to the No. 11 Boiler (**PWR011**). The permittee shall inform the Director, West Central Regional Office at least thirty days before a separation of fuel storage occurs. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the No. 2 fuel oil was received;
- c. The volume of No. 2 fuel oil delivered in the shipment;
- d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil number 2; and
- e. The sulfur content of the No. 2 fuel oil.

(9 VAC 5-80-110, 9 VAC 5-80-1100, and Condition 50 of the 11/3/03 Permit)

**28. Emission Limits** - Emissions from the operation of the modified No. 11 Boiler (**PWR011**) shall not exceed the limits specified below:

Particulate Matter	7.1 lbs/hr	10.8 tons/yr
PM-10	7.1 lbs/hr	10.8 tons/yr
Sulfur Dioxide	105.0 lbs/hr	38.5 tons/yr
Nitrogen Oxides(as NO <sub>2</sub> )	51.0 lbs/hr	93.1 tons/yr
Carbon Monoxide	61.2 lbs/hr	65.2 tons/yr
Volatile Organic Compounds .	1.63 lbs/hr	7.1 tons/yr
Sulfuric Acid <sup>a</sup>	4.5 lbs/hr	1.7 tons/yr

<sup>a</sup>Based on emission factor 0.043 lb/lb SO<sub>2</sub> per NASCI SARA Handbook 95, and hourly 1.2 factor.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 71 of the 11/3/03 Permit)

29. **Emission Limits** - The No. 11 Boiler (**PWR011**) nitrogen oxide emission limit (lbs/MMBTU) from the burning of natural gas and No. 2 fuel oil, shall be determined by the following formula:

$$\text{NO}_x \text{ limit} = (\text{NG} \cdot \text{EF}_{\text{NG}} + \text{DO} \cdot \text{EF}_{\text{DO}}) / [(\text{NG} \cdot \text{HC}_{\text{NG}} + \text{DO} \cdot \text{HC}_{\text{DO}}) / 10^6] \quad \text{where,}$$

NG = natural gas burned (cu. ft.)

DO = No. 2 fuel oil burned (gal.)

$\text{EF}_{\text{NG}} = 50 \times 10^{-6}$  lb NO<sub>x</sub>/cu. ft. natural gas

$\text{EF}_{\text{DO}} = 0.0138$  lb NO<sub>x</sub>/gal No. 2 fuel oil

$\text{HC}_{\text{NG}} =$  heat content of natural gas, 1000 Btu/cu. ft.

$\text{HC}_{\text{DO}} =$  heat content of No. 2 fuel oil, 138,000 Btu/gal

The permittee shall demonstrate compliance with the NO<sub>x</sub> emissions standard calculated above on a continuous 30 day rolling average.

(9 VAC 5-80-110, 9VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 72 of the 11/3/03 Permit)

30. **Visible Emission Limit** - Visible Emissions from the No. 11 Boiler (**PWR011**) shall not exceed ten (10) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty (20) percent opacity. This condition applies at all times, except during periods of startup, shutdown or malfunction.

(9 VAC 5-80-110, 9 VAC 5-50-80, 9 VAC 5-50-260, 9 VAC 5-50-410, 40 CFR 60 NSPS Subpart Db, 9 VAC 5-80-1100, and Condition 78 of the 11/3/03 Permit)

31. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the No. 11 Boiler (**PWR011**) shall be operated in compliance with the requirements of 40 CFR 60, NSPS Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

(9 VAC 5-80-110, 9 VAC 5-50-400, 9 VAC 5-80-1100, and Condition 81 of the 11/3/03 Permit)

32. **Operation and Maintenance** – All boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.

(9 VAC 5-80-110, and 9 VAC 5-80-1100)

33. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the No. 6-11 Boilers shall be operated in compliance with the requirements of the NO<sub>x</sub> Budget Trading Program (see the separate NO<sub>x</sub> Budget Trading Program multi-page section in this permit).

(9 VAC 5-80-110, 9 VAC 5-140-10 et seq., and 9 VAC 5-170-160)

34. **Requirements by Reference** – MACT DDDDD - Except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, each MACT Subpart DDDDD affected source shall be operated in

compliance with the requirements of 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants from Industrial, Commercial, and Institutional Boilers and Process Heaters. This MACT has a compliance date of September 13, 2007 for existing sources.

(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.7480 et seq. (MACT DDDDD))

## **B. Monitoring**

1. **CEMS- NO<sub>x</sub>** -A continuous emission monitor shall continue to operate on the No. 11 Boiler (**PWR011**) to measure and record the amount of nitrogen oxides, and either oxygen or carbon dioxide. The monitor(s) shall be maintained, located, and calibrated in accordance with approved procedures (ref. 40 CFR §60.13 and §60.48b). Notifications as arranged with the Director, West Central Regional Office shall be submitted to the Director, West Central Region.  
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-50-410, 9 VAC 5-80-1700, 40 CFR 60 Subpart Db, and Condition 25 of the 11/3/03 Permit)
2. **CEMS-SO<sub>2</sub>** -A continuous emission monitor shall continue to operate on the No. 6-9 Boilers (**PWR006-9**) to measure and record the amount of sulfur dioxide emitted. Notifications as arranged with the Director, West Central Regional Office shall be submitted to the Director, West Central Region.  
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition I-43 of the 10/12/88 Permit)
3. **COMS** – A continuous emission monitor shall continue to operate on the combined stack for Boilers 6-9 (**PWR006-9**) to measure and record the opacity of the particulate matter emitted. Notifications as arranged with the Director, West Central Regional Office shall be submitted to the Director, West Central Region.  
(9 VAC 5-80-110 and 9 VAC 5-40-1000)
4. **Monitoring** – Each electrostatic precipitator shall be visually inspected on a weekly or more frequent basis for physical integrity and operating conditions and shall be equipped with such monitors as may be requested by VDEQ.  
(9 VAC 5-80-110 and 9 VAC 5-40-900)
5. **Opacity Monitoring** - Except when burning natural gas or not operating, the permittee shall conduct a weekly observation of the No. 10 Boiler (**PWR010**) and the No. 11 Boiler (**PWR011**) using a brief modified 40 CFR 60 Appendix A Method 22 evaluation (excludes condensed water vapor). If any visible emission is observed, the visible emission condition shall be addressed as soon as possible, such that no visible emissions are observable, and recorded or a 40 CFR 60 Appendix A Method 9 evaluation shall be performed to determine if the opacity source is in compliance with the conditions of this permit. The Method 9 evaluation shall be conducted for at least six (6) minutes. If any of these six (6) minute averages exceed the unit's opacity limitation, a visible emissions evaluation (VEE) shall be conducted on these emissions for at least 3 six minute periods (at least 18 minutes).

The visible emission observations, VEE results, and corrective actions shall be recorded. If a boiler does not operate during a weekly period when daylight or weather would allow an acceptable visible observation, this shall be noted on the records of this monitoring activity. If visible emissions observations conducted for a particular source during twelve (12) consecutive weeks show no visible emissions, the permittee with VDEQ concurrence, may reduce the monitoring frequency to once per month for that source. Any time the monthly visible emissions inspection shows observable opacity, or when requested by VDEQ, the monitoring frequency shall be increased to once per week. A continuous opacity monitor may be substituted for either of these observations.

(9 VAC 5-80-110)

6. **Operation & Maintenance Procedures** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the boilers.
- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance for all emission control equipment associated with the boilers.
  - b. Develop an inspection schedule, monthly at a minimum, to insure operational integrity of all emission control equipment associated with the boilers and maintain records of inspection results.
  - c. Have available written operating procedures for the boilers and all emission control equipment associated with the boilers. These procedures shall be based on the manufacturer's recommendations, at a minimum, if such recommendations exist.
  - d. Train operators in the proper operation of all emission control equipment associated with the boilers and familiarize the operators with the written operating procedures.

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110, 9 VAC 5-80-110 F & K, 9 VAC 5-40-20E, 9 VAC 5-50-20 E)

7. **Monitoring** – Requirements by Reference – MACT DDDDD - Except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, each MACT Subpart DDDDD affected source shall perform monitoring in compliance with the requirements of 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants from Industrial, Commercial, and Institutional Boilers and Process Heaters.
- (9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.7480 et seq. (MACT DDDDD))

### C. Recordkeeping

**On Site Records** - The permittee shall develop a record keeping system, or equivalent methodology acceptable to the Department, to maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall, if requested, be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. The annual consumption of coal and/or bark/woodwaste for the No. 6-9 Boilers (**PWR006-9**). The annual consumption shall be calculated monthly as the sum of each consecutive twelve (12) month period.
2. The annual consumption of natural gas, No. 2 fuel oil, No. 4 fuel oil, and No. 6 fuel oil for the No. 10 Boiler (**PWR010**). The annual consumption shall be calculated monthly as the sum of each consecutive twelve (12) month period.
3. The daily and annual consumption of natural gas and No. 2 fuel oil for the No. 11 Boiler (**PWR011**). The annual consumption shall be calculated monthly as the sum of each consecutive twelve (12) month period.
4. Oil shipments purchased, indicating the sulfur content per shipment.
5. All fuel supplier certifications, including coal supplier certifications as to sulfur, and ash content and average BTU value.
6. Continuous monitoring system data, including daily calibrations and quality assurance checks.
7. Records of the amount of sulfur dioxide emitted from the combined stack for the No. 6-9 Boilers (**PWR006-9**), as measured by continuous emission monitoring.
8. Records of nitrogen oxides and carbon dioxide or oxygen emitted from the No. 11 Boiler (**PWR011**), as measured by continuous emission monitoring.
9. Records of amount of nitrogen oxides emitted from the No. 6 Boiler (**PWR006**).
10. Records of amount of nitrogen oxides emitted from the No. 9 Boiler (**PWR009**).
11. Records of the weekly inspection and any operating conditions subsequently requested by VDEQ for the electrostatic precipitators, Boilers NO. 6-9 (**PWR006-9**).
12. Records of the opacity of the No. 6-9 Boilers (**PWR006-9**) stack, as measured by continuous opacity monitoring.

13. Annual measurements or estimates of the nitrogen oxides, sulfur dioxide, particulate matter, carbon monoxide, and volatile organic compounds emitted from the No. 11 Boiler (**PWR011**). Annual estimated emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.
14. Annual measurements or estimates of the nitrogen oxides emitted from the No. 6 Boiler and No. 9 Boiler (**PWR006 & PWR009**). Annual estimated emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.
15. Records of scheduled and unscheduled maintenance and operator training on the electrostatic precipitators, flue gas desulfurization scrubbers and the low NO<sub>x</sub> burners.
16. Records of the weekly/monthly opacity observations of the No. 10 Boiler (**PWR010**) and No. 11 Boiler (**PWR011**).
17. Records - Requirements by Reference – MACT DDDDD - Except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, each MACT Subpart DDDDD affected source shall keep records in compliance with the requirements of 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants from Industrial, Commercial, and Institutional Boilers and Process Heaters.  
(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.7480 et seq. (MACT DDDDD))

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-40-50, 9 VAC 5-50-50, 9 VAC 5-80-110, Condition II-6 of the 10/12/88 Permit, and/or Condition 105 of the 11/3/03 Permit)

#### **D. Testing**

1. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110, Condition II-4 of the 10/12/88 Permit, and Condition 28 of the 11/3/03 Permit)
2. **Stack Tests** – At least once during the period of this permit and upon request and proper notification by the DEQ, the permittee shall conduct performance tests for nitrogen oxides from the No. 6 and No. 9 Boilers (**PWR006 & PWR009**) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Director, West Central Regional Office.  
(9 VAC 5-80-110, 9 VAC 5-50-30, and Condition 95 of the 11/3/03 Permit)
3. **Stack Tests** – For the No. 6-9 Boilers (**PWR006-9**) at least once during the period of this permit and upon request and proper notification by the DEQ, the permittee shall conduct performance tests for particulate matter from each electrostatic precipitator or the common stack to demonstrate compliance with the emission limits contained in



this permit. The details of the tests shall be arranged with the Director, West Central Regional Office.

(9 VAC 5-80-110 and 9 VAC 5-50-30)

4. **Stack Tests** – At least once during the period of this permit the permittee shall conduct performance tests for nitrogen oxides from the No.11 Boiler (**PWR011**) to demonstrate compliance with the emission limits contained in this permit. Upon request and proper notification by the DEQ, the permittee shall conduct additional performance tests for particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, and/or sulfuric acid from the No. 11 Boiler (**PWR011**) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Director, West Central Regional Office.  
(9 VAC 5-80-110, 9 VAC 5-50-30, and Condition 97 of the 11/3/03 Permit)
5. **CEMS/COMS Quality Control Program** - A CEMS/COMS quality control program which is equivalent to the requirements of 40 CFR 60.13 and Appendix B or F shall be implemented for the continuous monitoring systems on the No. 11 Boiler (**PWR011**).  
(9 VAC 5-80-110, 9 VAC 5-50-40, and Condition 102 of the 11/3/03 Permit)
6. **Test Methods** If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - The test method is subject to DEQ approval at the time of the test (except Method 9 - 40 CFR Part 60, Appendix A)
Various Pollutants	Method subject to DEQ approval at the time of testing.
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## E. Reporting

Reporting - Requirements by Reference – MACT DDDDD - Except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, each MACT Subpart DDDDD affected source shall make all reports in compliance with the requirements of 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants from Industrial, Commercial, and Institutional Boilers and Process Heaters.

(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.7480 et seq. (MACT DDDDD))

The permittee shall make all reports as required by 40 CFR 60 Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units). This section is subject to periodic reporting for CEMS and COMS quality assurance. Other reporting requirements for this section are satisfied by the recordkeeping requirements in this section and by the reporting and recordkeeping requirements of the Facility Wide Conditions and the General Conditions sections.

## IV. Unbleached Pulp Mill Requirements

### A. Limitations

1. **Requirements by Reference – MACT S** – Except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, each MACT Subpart S affected source shall be operated in compliance with the requirements of 40 CFR 63 Subpart S (MACT S, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry) for "kraft" pulp mills that perform bleaching.

All existing and currently constructed (2003) kraft Unbleached Pulp Mill sources at this facility for which MACT S is applicable are defined as "existing" sources. The MACT S compliance date was April 16, 2001 for low volume high concentration (LVHC) kraft pulping system gases and kraft pulping process condensates, as detailed in the MACT. MACT S requires compliance no later than April 17, 2006 for high volume low concentration (HVLC) kraft pulping system gases, as detailed in the MACT.

(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.440 et seq. (MACT S), and Condition 83 of the 11/3/03 Permit)

2. **Requirements by Reference – NSPS BB** – Except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, the NSPS Subpart BB affected facilities shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart BB (NSPS BB, Standards of Performance for Kraft Pulp Mills). This section, Unbleached Pulp Mill, NSPS BB applicable processes include the Digester system, D-line Brown Stock Washer system, No. 4 Multiple-Effects Evaporator system, Condensate Stripper system, and the handling and treatment of the gases from these systems.

(9 VAC 5-80-110, 9 VAC 5-50-410, 40 CFR 60.280 et seq. (NSPS Subpart BB), and Condition 82 of the 11/3/03 Permit)

3. **Limitations and Emission Controls for "LVHC" System** - "The total HAP emission from" the LVHC system" (Low Volume High Concentration as defined by MACT S [described below in this section]) shall be controlled by being "enclosed and vented into a closed-vent system and routed to a control device" that meets one of the following standards:

- a. *Percentage reduction by thermal oxidizer combustion (98%)*: reduces total HAP emissions by ninety-eight percent (98%) or more by weight. (The current (2003) option used for the existing thermal oxidizer waste gas incinerator are 98% HAP reduction [MACT S] and 1400 °F for 0.5 second [NSR permit]); or
- b. *Minimum combustion temperature 1600 °F*: reduces total HAP emissions using a thermal oxidizer waste gas incinerator designed and operated at a minimum temperature of 1600 °F (871 °C) and a minimum residence time of 0.75 seconds [MACT S]; or

c. *Lime kiln combustion*: reduces total HAP emissions using a lime kiln by introducing the HAP emission stream with the primary fuel or into the flame zone [MACT S]. Also refer to condition 8 in this section for additional temperature limits for the No. 1 lime kiln before its NSPS BB modification.

The "LVHC system" (Low Volume High Concentration) is defined as the collection of equipment as specified by MACT Subpart S, which includes the digester system, turpentine recovery system, evaporator system (including waste heat evaporators, multiple effect evaporators, and non-direct contact concentrator), and (steam) condensate stripper system, and any other equipment serving the same function.

In accordance with MACT Subpart S, the "enclosed and vented into a closed vent system" in this condition shall meet the requirements specified in 40 CFR 63.450.

MACT Subpart S states that periods of excess emissions (LVHC gas systems) shall not be a MACT Subpart S violation provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed one (1) percent for control devices used to reduce the total HAP emissions from the LVHC system. Excess emissions are identified as periods when the incinerator combustion temperature, for more than 60 consecutive minutes, is below the temperature established during the initial or most recent performance test that demonstrates compliance.

(9 VAC 5-80-110, 9 VAC 5-60-100; 40 CFR 63.440 et seq. (MACT S), 40 CFR 63.441, 40 CFR 63.443 (a)(1)(i), (c), (d)(3), (d)(4), (e)(1), 40 CFR 63.450; 9 VAC 5-50-410; 9 VAC 5-40-1690, 9 VAC 5-80-1100, 9 VAC 5-50-260, Conditions I-10, 22, 23, 24, 26, & 28 of the 10/12/88 permit, and Conditions 11 & 53 of the 11/3/03 permit)

**4. Limitations and Emission Controls for "Pulping Process Condensates" - The kraft pulping process condensates as defined below shall meet the standards requirements of 40 CFR 63 MACT Subpart S, which include the following:**

- a. *Removal of 10.2 lbs/ton*: The kraft "pulping process condensates" from the equipment systems listed in this condition shall "in total contain a total HAP mass" of at least 11.1 pounds per ton of ODP and shall be treated to remove at least 10.2 pounds of "total HAP" per ton of ODP. Excess emissions are identified as periods when the condensate feed flow or steam rate (shall monitor both) to the condensate stripper, on a 15-day rolling average basis, is below the flow established during the initial or most recent performance test that demonstrates compliance.
- b. *Closed collection system*: The kraft pulping process condensates shall be "conveyed in a closed collection system," including any associated drain system and condensate tank, that is designed and operated to meet the requirements of 40 CFR 63.446 (d).

c. *Treatment:* Each pollutant removed by steam stripping from a pulping process condensate stream shall be controlled by the LVHC emission control system, or system(s) meeting the same requirements.

Kraft "pulping process condensates" means, for this condition, the condensates as specified by MACT Subpart S, which include the condensates from the (1) digester system, (2) turpentine recovery system (other than condensed turpentine byproduct), (3) evaporator system (condensate from the vapors from each feed stage and from each evaporator vacuum system for each feed stage), (4) HVLC collection system, and (5) LVHC collection system.

In accordance with MACT Subpart S, periods of excess emissions from kraft pulping process condensates shall not be a MACT Subpart S violation provided that the time of excess emissions (including periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed 10 percent.

(9 VAC 5-80-110, 9 VAC 5-60-100; 40 CFR 63.440 et seq. (MACT Subpart S), 40 CFR 63.446, 40 CFR 63.446 (a), (b), (c)(3), (d), (e)(5), (f), (g); 9 VAC 5-80-1100, 9 VAC 5-50-260, Conditions 11, 12, & 54 of the 11/3/03 permit, and Condition I-26 of the 10/12/88 permit)

5. **Limitations and Emission Controls for "HVLC" System** – The total HAP emissions from the HVLC system, as defined in 40 CFR 63 Subpart S, shall be in compliance with the provisions of 40 CFR 63 Subpart S by April 17, 2006.  
(9 VAC 5-80-110, 9 VAC 5-60-100, and 40 CFR 63.440 et seq. (MACT Subpart S))
6. **Emission Unit Decommission** - The No. 8 Slaker shall no longer be operated. Reactivation of No. 8 Slaker may require a permit.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, and Condition 5 of the 11/3/03 Permit)
7. **Emission Unit Decommission** - The Lime Calciner shall no longer be operated. Reactivation of the Lime Calciner may require a permit.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, and Condition 7 of the 11/3/03 Permit)
8. **Emission Controls** - Total reduced sulfur emissions and volatile organic compound emissions from the Kraft Pulp Digester System, including current digesters 1-18 and proposed digesters 19-26, **(UPM003)**, the Turpentine System **(UPM004)**, effective 4/17/06 the A Line Brownstock Washer Line **(UPM010)**, A-Line Oxygen Delignification System and Blow Tank **(UPM012)**, effective 4/17/06 the A Line Post Oxygen Washer Line **(UPM013)**, effective 4/17/06 the C Line Brownstock Washer Line **(UPM020)**, the C-Line Oxygen Delignification System and Blow Tank **(UPM022)**, effective 4/17/06 or upon startup, whichever is later, the C Line Post Oxygen Washer Line **(UPM023)**, D-Line Brownstock Washer System **(UPM030)**, the D-line Oxygen Delignification System and Blow Tank **(UPM032)**, effective 4/17/06 the D Line Post Oxygen Washer Line **(UPM033)**, Digesting Blow Tank System and Accumulator System **(UPM003)**, the Waste Heat Evaporator System **(REC061)**, the No. 1, 2 & 3 Multiple Effect Evaporators **(REC062)**, the No. 4 Multiple Effect Evaporator **(REC063)**, the indirect-contact Black Liquor

Concentrator System (**REC068**), the Condensate Stripper System (**REC064**), and when combusting any non-condensable gases (NCG) generated by any source subject to NSPS Subpart BB (includes digester system, D-line brown stock washer system, multiple-effect evaporator system, condensate stripper system) shall be controlled by the non-condensable gas (NCG) odor control system. The NCG odor control system shall combust waste gasses in a lime kiln or waste gas incinerator, in accordance with 40 CFR §60.283 (NSPS BB), which includes requirements of a minimum temperature of 1200 °F for at least 0.5 seconds in both thermal oxidizers and non-NSPS BB lime kilns [No. 1 Lime Kiln (**REC045**) prior to modification for 8 ppm TRS instead of 20 ppm TRS NSPS BB limit to apply]. Waste gasses combusted in a waste gas incinerator shall be subjected to a minimum temperature of 1400 °F for at least 0.5 second or a temperature lower than 1400 °F, which was demonstrated during the most recent measurement of incinerator efficiency, by testing acceptable to the Agency, to provide a minimum control efficiency of 98.0% at design VOC input conditions, but in no case less than 1200 °F for at least 0.5 second\*. The waste gas incinerator(s) shall be provided with adequate access for inspection.

\*If the permittee elects to demonstrate compliance at a temperature less than 1400 °F, testing to demonstrate compliance with 98.0% destruction efficiency shall be done at least once in any three year period.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-410, 40 CFR 60.280 et seq. (NSPS Subpart BB), 40 CFR 60.283(a)(1)(i), (ii), (iii), and (a)(2 and 5); 40 CFR 60.284 (a)(2), Conditions I-22, 23, 24 & 28 of the 10/12/88 Permit, and Condition 11 of the 11/3/03 Permit)

9. **Emission Controls** - Volatile Organic Compound (VOC) emissions from foul condensate and portions of other process waste water streams, as necessary to meet the requirements of the next condition, shall be controlled by combustion as stripper off gasses (SOGs) from the Condensate Stripper System or by biological degradation in the WTP. A second condensate stripper shall be added to the Condensate Stripper System prior to the start-up of any of Kraft Pulp Digesters 19-26 or substitute continuous digester.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 12 of the 11/3/03 Permit)

10. **Emission Limits** - Emissions from pulp mill condensates, including foul condensates, and pulp mill process water shall not exceed the limits specified below:

Volatile Organic Compounds	2862.0 tons/yr
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This emission limit shall include emissions from all uses, reuses, recycling, storage, handling, incineration, and WTP treatment of these condensates/process waters.

The amount of VOC (methanol) that shall be removed and destroyed (not emitted) by steam stripping and biological treatment in order to meet this limit shall be at least\* :

0-2000 ADTP/D yrly avg: 14.92 lbs/ADTP

$$2000-3800 \text{ ADTP/D yrly avg: lbs/ADTP} = 22.76 - \frac{7.84}{(x/2000)}$$

where  $x = \text{ADTP}/D$  yrly avg.

\*The least amount to be destroyed shall be adjusted as necessary if the amount of VOC (methanol) formed changes from the basis that this mill forms a net 22.76 lbs VOC (methanol)/ADTP after subtracting the following having a separate accounting from a gross 24.83 lbs VOC (methanol)/ADTP formed due to digesting and bleaching:

0.34 lb/ADTP - non-condensable gases combusted in odor control system  
1.40 lb/ADTP - in black liquor sent to recovery furnaces and BLOX tower  
0.33 lb/ADTP - to land and water via WTP.

These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1700, and Condition 54 of the 11/3/03 Permit)

11. **Emission Limits** - Emissions from the following modified systems are included in the VOC (methanol) emissions limit in the previous condition: Green Liquor Clarifier (**REC032**), Dregs Washer (**REC050**), Dregs Filter (**REC051**), Pulp Screening and Knotting Equipment (**UPM005 UPM 014, UPM024 & UPM034**), Causticizer, White Liquor Clarifier (**REC036**), Lime Mud Washer (**REC041**), and Lime Mud Filter(**REC043**).

(9 VAC 5-80-110, 9 VAC 5-160-170, and Condition 55 of the 11/3/03 Permit)

12. **Throughput Limit** - The production of pulp from kraft pulp digesters No. 1 - 18 (**UPM003 [portion]**) shall not exceed 2,600 ADTP per day, averaged over a year, and 949,000 ADTP per year.

(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-80-1700, and Condition I-4 of the 10/12/88 Permit)

13. **Throughput Limit** - The new Kraft pulp Digesters (19-26) (**UPM003[portion]**), or an equivalent continuous digester, shall process no more than 438,000 ADTP per year, calculated monthly as the sum of the previous consecutive 12 months' throughput.

(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-80-1700, and Condition 37 of the 11/3/03 Permit)

14. **Throughput Limit** - The production of pulp from the proposed, enlarged kraft pulp digester system, digesters 1-26, (**UPM003**) shall not exceed 1,387,000 ADTP per year, calculated monthly as the sum of the previous consecutive 12 months' production.

(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-80-1700, and Condition 29 of the 11/3/03 Permit)

15. **Throughput Limit** - The modified Waste Heat Evaporator System (**REC061**) shall process no more than 1,387,000 ADTP per year, calculated monthly as the sum of the previous consecutive 12 months' throughput.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-80-1700, and Condition 38 of the 11/3/03 Permit)
16. **Throughput Limit** - The A-Line Oxygen Delignification System, C-Line Oxygen Delignification System, and D-Line Oxygen Delignification System (**UPM013, 023, 033**) shall each process no more than 438,000 ODTP per year, calculated monthly as the sum of the previous consecutive 12 months' throughput.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 34 of the 11/3/03 Permit)
17. **Emission Limits** - Emissions from the operation of each of the A-Line Post Oxygen Delignification System, C-Line Post Oxygen Delignification System, or D-Line Post Oxygen Delignification System (**UPM013, 023, 033**) shall not exceed the limits specified below:  

Volatile Organic Compounds	43.2 lbs/hr	157.7 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded. Compliance with these emission limits shall be determined as stated in the testing section, below.  
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1700, and Condition 53 of the 11/3/03 Permit)
18. **Throughput Limit** - The recovery portion of the unbleached pulp mill shall process no more than 445,300 tons per year, calculated monthly as the sum of the previous consecutive 12 months' throughput of lime (as CaO). This production unit includes the Green Liquor Clarifier System (**REC032**), the White Liquor Clarifier System (**REC036**), the Lime Mud Washing System (**REC041**), the Lime Mud Filter System (**REC043**), the Dregs Washing System (**REC050**), and the Dregs Filter System (**REC051**).  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Conditions 35 of the 11/3/03 Permit)
19. **Throughput Limit** - The Causticizer system (**REC034, REC035 & REC039**) shall process no more than 445,300 tons per year, calculated monthly as the sum of the previous consecutive 12 months' throughput of lime (as CaO).  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 35 of the 11/3/03 Permit)
20. **Emission Controls** - Particulate emissions from the No. 16 Slaker (**REC034**) shall be controlled by a spray condenser and process enclosure.  
(9 VAC 5-80-110, 9 VAC 5-80-1700, and Condition I-44 of the 10/12/88 Permit)

21. **Emission Controls** - Particulate emissions from the No. 20 Slaker (**REC035**) shall be controlled by a scrubber.  
(9 VAC 5-80-110 and 9 VAC 5-80-1700)
22. **Emission Limits** - Emissions from the operation of the No. 20 Slaker (**REC035**) shall not exceed the limits specified below:
- |                    |            |              |
|--------------------|------------|--------------|
| Particulate Matter | 6.0 lbs/hr | 26.3 tons/yr |
|--------------------|------------|--------------|
- (9 VAC 5-80-110, 9 VAC 5-40-1680, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition I-15 of the 10/12/88 Permit)
23. **Emission Controls** - Particulate emissions from the No. 24 Slaker (**REC039**) shall be controlled by a condenser and vented process enclosure.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 20 of the 11/3/03 Permit)
24. **Throughput Limit** - The No. 24 Slaker (**REC039**) shall process no more than 445,300 tons per year, calculated monthly as the sum of the previous consecutive 12 months' throughput of lime (as CaO).  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 35 of the 11/3/03 Permit)
25. **Emission Limits** - Emissions from the operation of the No. 24 Slaker (**REC039**) shall not exceed the limits specified below:
- |                    |            |             |
|--------------------|------------|-------------|
| Particulate Matter | 2.4 lbs/hr | 8.8 tons/yr |
| PM-10              | 2.4 lbs/hr | 8.8 tons/yr |
- These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded. Compliance with these emission limits shall also be determined as stated in the testing section, below.  
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1700, and Condition 59 of the 11/3/03 Permit)
26. **Visible Emission Limit** - Visible emissions from the No. 20 Lime Slaker (**REC035**) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.  
(9 VAC 5-80-110 and 9 VAC 5-50-80)
27. **Emission Controls** - Particulate emissions from the Nos. 1, 2, 3, 4, and 5 Lime Bins (**REC048 & REC049**) shall be controlled by fabric filtration. The fabric filters shall be provided with adequate access for inspection.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 19 of the 11/3/03 Permit)



28. **Throughput Limit** - The No. 1, 2, and 3 Lime Bins combined (**REC048**) shall process no more than 2,715,600 tons per year, calculated monthly as the sum of the previous consecutive 12 months' throughput of lime (as CaO).  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 31 of the 11/3/03 Permit)

29. **Emission Limits** - Emissions from the operation of the No. 1, No. 2, and No. 3 Lime Bins combined (**REC048**) shall not exceed the limits specified below:

Particulate Matter	1.0 lbs/hr	4.4 tons/yr
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PM-10	1.0 lbs/hr	4.4 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded. Compliance with these emission limits shall be determined as stated in the testing section, below.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1700, and Condition 67 of the 11/3/03 Permit)

30. **Throughput Limit** - The No. 4 and No. 5 Lime Bins combined (**REC049**) shall process no more than 3,679,200 tons per year, calculated monthly as the sum of the previous consecutive 12 months' throughput of lime (as CaO).  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 32 of the 11/3/03 Permit)

31. **Emission Limits** - Emissions from the operation of the No. 4 and No. 5 Lime Bins combined (**REC049**) shall not exceed the limits specified below:

Particulate Matter	1.4 lbs/hr	5.0 tons/yr
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PM-10	1.2 lbs/hr	4.5 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded. Compliance with these emission limits shall be determined as stated in the testing section, below.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1700, and Condition 68 of the 11/3/03 Permit)

32. **Visible Emission Limit** - Visible emissions from the lime bin fabric filters shall not exceed five percent (5%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed ten percent (10%) opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during periods of startup, shutdown, and malfunction.

(9 VAC 5-80-110, 9 VAC 5-40-80, 9 VAC 5-50-80, and Condition 75 of the 11/3/03 Permit)

33. **Fuel** - The approved fuel for the Waste Gas Incinerators No. 1, No. 2, and No. 3 (**REC065 & REC067**) is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 49 of the 11/3/03 Permit)
34. **Emission Controls** – Sulfur dioxide emissions from the No. 1, No. 2, and No. 3 Waste Gas Incinerators (**REC065 & REC067**) shall be controlled by alkaline scrubbers. The scrubbers shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and 9 VAC 5-50-260)
35. **Emission Unit Decommission** - Beginning with the start-up of the No. 3 Waste Gas Incinerator (**REC067[partial]**), the No. 1 Waste Gas Incinerator (**REC065**) shall no longer be operated. Reactivation of the No. 1 Waste Gas Incinerator may require a permit.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 6 of the 11/3/03 Permit)
36. **Emission Limits** - Emissions from the operation of the No. 1 Waste Gas Incinerator (**REC065**) shall not exceed the limits specified below:
- |                                       |             |               |
|---------------------------------------|-------------|---------------|
| Particulate Matter                    | 18.0 lbs/hr | 65.7 tons/yr  |
| PM-10                                 | 18.0 lbs/hr | 65.7 tons/yr  |
| Sulfur Dioxide                        | 21.6 lbs/hr | 78.8 tons/yr  |
| Nitrogen Oxides (as NO <sub>2</sub> ) | 48.0 lbs/hr | 175.2 tons/yr |
| Carbon Monoxide                       | 4.0 lbs/hr  | 14.5 tons/yr  |
| Volatile Organic Compounds            | 6.8 lbs/hr  | 25.0 tons/yr  |
- (9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 73 of the 11/3/03 Permit)
37. **Emission Limits** - Emissions from the operation of the No. 2 Waste Gas Incinerator or the No. 3 Waste Gas Incinerator (**REC067**) shall not exceed the limits specified below:
- |                                       |             |              |
|---------------------------------------|-------------|--------------|
| Particulate Matter                    | 2.4 lbs/hr  | 8.8 tons/yr  |
| PM-10                                 | 2.4 lbs/hr  | 8.8 tons/yr  |
| Sulfur Dioxide                        | 6.0 lbs/hr  | 21.9 tons/yr |
| Nitrogen Oxides (as NO <sub>2</sub> ) | 10.9 lbs/hr | 39.9 tons/yr |
| Carbon Monoxide                       | 3.6 lbs/hr  | 13.1 tons/yr |
| Volatile Organic Compounds            | 6.8 lbs/hr  | 25.0 tons/yr |
- (9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 74 of the 11/3/03 Permit)

38. **Visible Emission Limit** - Visible emissions from each Waste Gas Incinerator (**REC065 & REC067**) shall not exceed ten percent (10%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty percent (20%) opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-110, 9 VAC 5-50-80, and Condition 79 of the 11/3/03 Permit

## **B. Monitoring**

1. **MACT Monitoring Requirements** – The following monitoring conditions are required for compliance with 40 CFR 63, Subpart S (MACT S, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry):
  - a. *Thermal oxidizer waste gas incinerator temperature*: A continuous monitoring system in accordance with 40 CFR 63.453(a & b) and 40 CFR 60.284(b)(1) shall be operated to measure the temperature of each thermal oxidizer waste gas incinerator, measured in the firebox near its exit or in the ductwork immediately downstream of the firebox and before any substantial heat exchange.
  - b. *Steam stripper*: A continuous monitoring system in accordance with 40 CFR 63.453(g) shall be operated for each steam stripper (REC064 & REC069) to measure: (1) the process wastewater feed rate, (2) the steam feed rate, and (3) the process wastewater column feed temperature.
  - c. *Enclosures and closed vent gas collection system - MACT S*: Monitoring of the enclosures and closed vent gas collection systems associated with the LVHC system, and effective 4/17/06 those associated with the HVLC system, shall meet the requirements of 40 CFR 63.453(k) [MACT S], which include the following:
    - (1) *Gas collection system - 30 day visual inspections*: Each enclosure and closed-vent gas collection system shall be visually inspected every 30 days. The 30 day visual inspection shall include inspections to (a) ensure each enclosure opening is maintained in the closed position and sealed in accordance with 40 CFR 63.450(b), (b) inspect ductwork, piping, enclosures, and connections to covers for visible evidence of defects, and (c) ensure any bypass closure mechanism is maintained in the closed position and the emissions are not diverted through the bypass line.
    - (2) *Gas collection system - annual inspections*: Demonstrate annually (a) that each enclosure opening is maintained at negative pressure, and (b) for positive pressure closed vent systems or portions of closed vent systems, demonstrate no detectable leaks (by an instrument reading of less than 500 ppm above background).

(3) *Gas collection system - repair, corrective action:* A first effort to repair or correct a closed-vent gas collection system shall be made within 5 calendar day after a problem is identified. The repair or corrective action shall be completed within 15 calendar days after the problem is identified unless specified otherwise in 40 CFR 63.453(k)(6).

d. *Condensate collection system:* Each pulping process condensate closed collection system used to comply with 40 CFR 63.446(d) shall be visually inspected every 30 days and shall comply with the inspection requirements of 40 CFR 63.453(l) [MACT S].

(9 VAC 5-80-110, 5 VAC 5-60-100, 9 VAC 5-80-1100, 40 CFR 63.440 et seq. (MACT Subpart S), 9 VAC 5-50-410, 40 CFR 60.280 et seq. (NSPS Subpart BB), and Condition 11 of 11/3/03 Permit)

2. **Monitoring Devices** - The Nos. 1, 2, 3, 4, and 5 Lime Bins (**REC048 & REC049**) fabric filters that exceed 2500 cfm shall each be equipped with a device to continuously measure the differential pressure drop across the fabric filters. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating except for periods of maintenance or malfunction.

(9 VAC 5-80-110, 9 VAC 5-80-1100, and Condition 19 of 11/3/03 Permit)

3. **Monitoring Devices** - No. 20 Slaker (**REC035**) scrubber shall be equipped with a monitoring device to measure the pressure drop across the scrubber and the scrubber liquid flow rate or supply pressure, and keep weekly records. The monitoring device shall be properly calibrated and maintained, and shall be in operation at all times the slaker is in operation except for periods of maintenance or malfunction.

(9 VAC 5-80-110 and 9 VAC 5-80-1100)

4. **Monitoring Devices** – The No. 1, No. 2, and No. 3 Waste Gas Incinerator (**REC065 & REC067**) scrubbers shall be equipped with monitoring devices which measure the pH of the scrubbing liquid and either the scrubber liquid flow rate or supply pressure, and keep weekly records.

(9 VAC 5-80-110 and 9 VAC 5-80-1100)

5. **Opacity Monitoring** - The permittee shall conduct a weekly observation of waste gas incinerator(s) (**REC065 & REC067**), and the No. 20 Slaker (**REC035**) using a brief modified 40 CFR 60 Appendix A Method 22 evaluation (excludes condensed water vapor). If any visible emission is observed, the visible emission condition shall be addressed as soon as possible, such that no visible emissions are observable, and recorded, or a 40 CFR 60 Appendix A Method 9 evaluation shall be performed to determine if the opacity source is in compliance with the conditions of this permit. The Method 9 evaluation shall be conducted for at least six (6) minutes. If any of these six (6) minute averages exceed the unit's opacity limitation, a visible emissions evaluation (VEE) shall be conducted on these emissions for at least 3 six minute periods (at least 18 minutes). The visible emission observations, VEE results, and corrective actions shall be recorded. If an emission unit does not operate during a weekly period when daylight or weather would allow an acceptable visible observation, this shall be noted on the records of this monitoring activity. If visible

emissions observations conducted for a particular emission source during twelve (12) consecutive weeks show no visible emissions, the permittee, with DEQ concurrence, may reduce the monitoring frequency to once per month for that specific stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

(9 VAC 5-80-110)

6. **Opacity Monitoring** - The permittee shall conduct a weekly observation of the Nos. 1, 2, 3, 4, and 5 Lime Bins (**REC048 & REC049**), using a brief modified 40 CFR 60 Appendix A Method 22 evaluation (excludes condensed water vapor). If any visible emission is observed, the visible emission condition shall be addressed as soon as possible, such that no visible emissions are observable, and recorded, or a 40 CFR 60 Appendix A Method 9 evaluation shall be performed to determine if the opacity source is in compliance with the conditions of this permit. The Method 9 evaluation shall be conducted for at least six (6) minutes. If any of these six (6) minute averages exceed the unit's opacity limitation, a visible emissions evaluation (VEE) shall be conducted on these emissions for at least 3 six minute periods (at least 18 minutes). The visible emission observations, VEE results, and corrective actions shall be recorded. If a bin is not charged during a weekly period when daylight or weather would allow an acceptable visible observation, this shall be noted on the records of this monitoring activity. If visible emissions observations conducted for a particular emission source during twelve (12) consecutive weeks show no visible emissions, the permittee, with DEQ concurrence, may reduce the monitoring frequency to once per month for that specific stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

(9 VAC 5-80-110)

7. **Enclosure Monitoring** - The permittee shall conduct a monthly observation of the No. 16 Slaker (**REC034**) and the No. 24 Slaker (**REC039**) to verify proper enclosure of the slakers (vented enclosure for No. 24 Slaker). A record of the observations and any actions taken to correct openings in an enclosure will be kept.

(9 VAC 5-80-110)

### C. Recordkeeping

**On Site Records** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall, if requested, be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Annual throughput in the 1-18 digesters. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period.
2. Annual throughput in the 19-26 digesters, if constructed. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period. The total digester throughputs will also be recorded.

3. Annual throughput of the Waste Heat Evaporator System (**REC061**), calculated as ADTP. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period.
4. Annual throughput in each of the oxygen delignification systems, A-Line, C-Line, and D-Line. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period.
5. Annual throughput of lime slurry in the recovery portion of the unbleached paper mill, calculated as tons of CaO. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period.
6. Annual throughput of lime slurry in the Causticizers (**REC034, REC035 & REC039**), calculated as tons of CaO. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period.
7. Annual throughput of lime slurry in the No. 24 Slaker (**REC039**), calculated as tons of CaO. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period.
8. Records of the differential pressure readings across the scrubber and the scrubber liquid flow rate or supply pressure for the scrubber controlling the No. 20 Lime Slaker (**REC035**).
9. Monthly throughputs and VOC (methanol) content of foul condensates and other waste streams as necessary to meet the requirements of Conditions IV-A-10 and IV-A-11.
10. Records of the differential pressure readings across the fabric filters controlling the lime storage bins, unless air flow through the filters are less than 2,500 cfm (**REC048 & REC049**).
11. Records of the waste gas incinerator(s) (**REC065 & REC067**) temperature.
12. Records of the waste gas incinerator(s) (**REC065 & REC067**) scrubber pH and flow rate or supply pressure.
13. Records of the process wastewater feed rate, the steam feed rate, and the process wastewater column feed temperature of each condensate stripper (**REC064 & REC069**).
14. Estimated annual VOC emissions from each of the oxygen delignification systems, A-Line, C-Line, and D-Line, using emission factors acceptable to VDEQ. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period. (This condition is satisfied by documentation that these emissions are combusted with the MACT S LVHC gasses or the NSPS BB controlled gasses.)
15. Estimated annual particulate and PM-10 emissions from each of the lime slakers, No. 16, No. 20, and No. 24 (**REC034, REC035 & REC039**), using emission factors acceptable to VDEQ. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.

16. Estimated annual particulate and PM-10 emissions from the No. 1, No2, and No.3 Lime Bins (**REC048**) and from the No. 4 and No. 5 Lime Bins (**REC049**), using emission factors acceptable to VDEQ. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.
  17. Estimated annual emissions of volatile organic compounds to determine compliance with conditions A-10 and A-11 of this section, using emission factors acceptable to VDEQ. Details of particular emission points not otherwise specified may be requested by VDEQ to clarify the estimation process. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.
  18. Records of the weekly/monthly opacity observations of the incinerator(s), slakers and lime bins and the monthly slaker enclosure observations.
  19. Records of the inspections of the gas collection system and the condensate collection system.
  20. Records as necessary to document compliance with the production based emission limits formula in the limitations part of this section.
  21. Results of all stack tests, visible emission evaluations and performance evaluations.
  22. Continuous monitoring system data, including daily calibrations and quality assurance checks, if required.
  23. Records of scheduled and unscheduled maintenance, and operator training for pollution control equipment, including the gas and condensate collection systems.
- These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110, 9 VAC 5-50-50, Condition II-6 of the 10/12/88 Permit, and/or Condition 105 of the 11/3/03 Permit)

#### **D. Testing**

1. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations or in accordance with the applicable performance specification (reference 40 CFR Part 60, Appendix B).  
(9 VAC 5-50-30, 9 VAC 5-80-110, Condition II-4 of the 10/12/88 Permit, and Condition 28 of the 11/3/03 Permit)
2. **Stack Test** - Initial performance tests shall be conducted for particulate matter, concurrent visible emissions evaluations as much as possible, sulfur dioxide, nitrogen oxides, carbon monoxide, and volatile organic compounds from Waste Gas Incinerator No. 2 and Waste Gas Incinerator No. 3 (**REC067**) to determine compliance with the emission limits and control efficiency requirements contained in the limitations portion of this section. The tests shall be performed, and demonstrate compliance, within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the No. 2 and No. 3 Waste Gas Incinerators, respectively. Tests shall be conducted and

reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion.

(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200 and Condition 88 of the 11/3/03 Permit)

3. **Stack Test** – An initial performance test shall be conducted for particulate matter, concurrent visible emissions evaluations as much as possible, sulfur dioxide, nitrogen oxides, carbon monoxide, and volatile organic compounds from Waste Gas Incinerator No 1 (**REC065**), if still in use after installation of the No. 2 Condensate Stripper (**REC069**), to determine compliance with the emission limits and control efficiency requirements contained in the limitations portion of this section. The test shall be performed, and demonstrate compliance, within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after installation of the No. 2 Condensate Stripper (**REC069**). Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200, and Condition 87 of the 11/3/03 Permit)

4. **Stack Test** – At least once during the term of this permit, the permittee shall conduct performance tests for volatile organic compounds from Waste Gas Incinerator No 1 (**REC065**), to determine compliance with the emission limits and control efficiency requirements contained in the limitations portion of this section. Additionally upon request by the VDEQ, the permittee shall conduct performance tests for particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, and/or volatile organic compounds from Waste Gas Incinerator No 1 (**REC065**), and if installed, Waste Gas Incinerators 2 or 3 (**REC067**), to determine compliance with the emission limits and control efficiency requirements contained in the limitations portion of this section. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200, and Condition 98 of the 11/3/03 Permit)



5. **Stack Tests** - Upon request by the VDEQ, the permittee shall conduct performance tests for particulate matter from the No. 24 Slaker (**REC039**), No. 1, No. 2, and No. 3 Lime Bins (**REC048**), and the No. 4 and No. 5 Lime Bins (**REC049**), to demonstrate compliance with the emission limits contained in the limitations portion of this section. The details of the tests shall be arranged with the Director, West Central Regional Office.

(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200, and Condition 94 of the 11/3/03 Permit)

6. **Visible Emissions Evaluation** - Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations in accordance with 40 CFR Part 60, Appendix A, Method 9 on any lime slaker (**REC034, REC035 or REC039**), lime bin (**REC048 or REC049**) or waste gas incinerator (**REC065 or REC067**) to demonstrate compliance with the visible emission limits contained in this permit. Each test shall consist of three (3) sets of twenty-four (24) consecutive observations (at fifteen (15) second intervals) to yield 3 sets of six (6) minute averages (totaling 18 minutes). The details of the tests are to be arranged with Director, West Central Regional Office. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. Two (2) copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with the New Source Review permit.

(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200, and Conditions 90 and 101 of the 11/3/03 Permit)

7. **Test Methods** If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - The test method is subject to DEQ approval at the time of the test (except Method 9 - 40 CFR Part 60, Appendix A)
Various Pollutants	Method subject to DEQ approval at the time of testing.
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## E. Reporting

The permittee shall make all reports as required by 40 CFR 60 Subpart BB (NSPS BB, Standards of Performance for Kraft Pulp Mills) and 40 CFR Part 63 Subpart S (MACT S, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry). This section may be subject to periodic reporting for future required CEMS/COMS. Other reporting requirements for this section are satisfied by the recordkeeping requirements in this section and by the reporting and recordkeeping requirements of the Facility Wide Conditions and the General Conditions sections.

## **V. Recovery Furnace and Lime Kiln Requirements**

### **A. Limitations**

1. **Requirements by Reference – MACT MM** – Effective March 13, 2004, except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, each MACT Subpart MM affected source shall be operated in compliance with the requirements of 40 CFR 63, Subpart MM (MACT MM, National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft...Pulp Mills). The equipment subject to this standard is as follows: the No. 1 Recovery Furnace and its smelt dissolving tanks, including its black liquor oxidation system and the direct contact evaporator (**REC001, REC002 & REC003**); The No. 2 Recovery Furnace and its smelt dissolving tank (**REC010 & REC 011**); The No. 1 Lime Kiln (**REC045**); and the No. 2 Lime Kiln (**REC047**). Each of these pieces of equipment is defined as an “existing source” for purposes of the MACT.  
(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.860 et seq. (MACT MM), and Condition 84 of the 11/3/03 Permit)
2. **Requirements by Reference – NSPS BB** – Except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, the NSPS Subpart BB affected facilities shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart BB (NSPS BB, Standards of Performance for Kraft Pulp Mills). The equipment subject to this standard is as follows: The No. 2 Recovery Furnace and its smelt dissolving tank (**REC010 & REC 011**); The No. 2 Lime Kiln (**REC047**); and, after the proposed NSPS BB modification, the No. 1 Lime Kiln (**REC045**). Also, some of the NSPS BB combustion requirements are applicable prior to modification when the No. 1 Lime Kiln is used for combustion of LVHC/NSPS BB gasses.  
(9 VAC 5-80-110, 9 VAC 5-50-410, and 40 CFR 60.280 et seq. (NSPS Subpart BB), and Condition 82 of the 11/3/03 Permit)
3. **Fuel** - The approved fuels for the No. 1 Recovery Furnace (**REC001**) and the No. 2 Recovery Furnace (**REC010**) are natural gas, No. 6 fuel oil, on-spec or off-spec used oil, and black liquor solids. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110)

4. **Fuel Specification** - The average sulfur content of the No. 6 fuel oil to be burned in No. 1 Recovery Furnace (**REC001**) and the No. 2 Recovery Furnace (**REC010**) shall not exceed one percent by weight per shipment. The permittee shall maintain records, including certifications, of all oil shipments purchased. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-50-260, and Conditions I-30 & I-31 of the 10/12/88 Permit)
5. **Emission Controls** – Particulate emissions from the No. 1 Recovery Furnace (**REC001**) shall be controlled by an electrostatic precipitator.  
(9 VAC 5-80-110)
6. **Emission Controls** – Carbon monoxide emissions from the No. 1 Recovery Furnace (**REC001**) shall be controlled by tertiary combustion air.  
(9 VAC 5-80-110, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 13 of the 11/3/03 Permit)
7. **Fuel Throughput** - The No. 1 Recovery Furnace (**REC001**) shall consume no more than 4,500 gallons of No. 6 fuel oil per hour. The amount of fuel oil may increase beyond this limit in proportion to the sulfur content decrease below 1 percent, as long as compliance is maintained with condition 8 emission limits.  
(9 VAC 5-80-110, 9 VAC 5-80-1100 and Conditions I-6 and I-31 of the 10/12/88 Permit)
8. **Emission Limits** - Emissions from the operation of the No. 1 Recovery Furnace (**REC001**) shall not exceed the limits specified below:
- |                    |                |                           |                 |
|--------------------|----------------|---------------------------|-----------------|
| Particulate Matter | 0.044 gr/dscf* | 150.0 lbs/hr              | 350.0 tons/yr   |
| PM-10              | 0.044 gr/dscf* | 103.8 lbs/hr              | 242.2 tons/yr   |
| Sulfur Dioxide     |                | 713.7 lbs/hr (firing oil) |                 |
| Carbon Monoxide    |                | 325.5 lbs/hr              | 1,188.2 tons/yr |
- \* corrected to 8% oxygen - effective March 13, 2004
- (9 VAC 5-80-110, 9 VAC 5-30-30, 9 VAC 5-60-100, 9 VAC 5-80-1100, 9 VAC 5-80-1700, 40 CFR 63.860 et seq. (MACT MM), Condition I-12 of the 10/12/88 Permit, and Condition 65 of the 11/3/03 Permit)
9. **Emission Limits** –The No. 1 Recovery Furnace (**REC001**) shall not emit emissions of total reduced sulfur (TRS) in excess of 5 ppm, 24 hour period average emission rate, corrected to 8% oxygen, for an aggregate period of more than 30 days per year.  
(9 VAC 5-80-110, 9 VAC 5-40-1690, 9 VAC 5-170-160, and Condition 64 of the 11/3/03 Permit)

10. **Visible Emission Limit** - Visible emissions from the No. 1 Recovery Furnace (**REC001**) shall not exceed thirty-five percent (35%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-60-100, and 40 CFR 63.860 et seq. (MACT MM))
11. **Emission Controls** – The proposed, indirect-contact Black Liquor Concentrator associated with the No. 1 Recovery Furnace shall process, if installed, no more than 958,855 tons of BLS per year (645,685 ADTP/yr), calculated monthly as the sum of the previous consecutive 12 months' throughput.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-80-1700, and Condition 39 of the 11/3/03 Permit)
12. **Emission Controls** – Particulate emissions from the No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**) shall be controlled by venturi scrubbers. The scrubbers shall be provided with adequate access for inspection.  
(9 VAC 5-80-110)
13. **Emission Limits** - Emissions from the operation of the No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**) shall not exceed the limits specified below:
- |                    |             |              |
|--------------------|-------------|--------------|
| Particulate Matter | 14.1 lbs/hr | 58.0 tons/yr |
| PM-10              | 12.6 lbs/hr | 51.9 tons/yr |
- (9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition I-13 of the 10/12/88 Permit)
14. **Emission Limits** – Effective March 13, 2004, the No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**) shall not emit particulate matter in excess of 0.20 pounds per ton of black liquor solids fired, as measured by EPA Method 5 of 40 CFR 60 Appendix A.  
(9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-60-100, and 40 CFR 63.860 et seq. (MACT MM))
15. **Emission Limits** – The No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**) shall not emit emissions of total reduced sulfur (TRS) in excess of 0.033 pounds per ton of black liquor solids processed, measured as H<sub>2</sub>S.  
(9 VAC 5-80-110, 9 VAC 5-40-1660, and 9 VAC 5-40-1690)
16. **Visible Emission Limit** - Visible emissions from the No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**) shall not exceed twenty percent (20%) opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-110, 9 VAC 5-40-1660, and 9 VAC 5-40-80)

17. **Emission Controls** - Particulate emissions from the No. 2 Recovery Furnace (**REC010**) shall be controlled by an electrostatic precipitator (ESP). The ESP shall be provided with adequate access for inspection.  
 (9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, and Condition I-20 of the 10/12/88 Permit)

18. **Emission Controls** – Total Reduced Sulfur (TRS) emissions from the No. 2 Recovery Furnace (**REC010**) shall be controlled by a non-direct contact evaporator/low TRS emission design recovery furnace with 1988 state-of-the art combustion controls.  
 (9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-410, 9 VAC 5-80-1100, 40 CFR 60.280 et seq. (NSPS Subpart BB), and Condition I-20 of the 10/12/88 Permit)

19. **Fuel Throughput** - The No. 2 Recovery Furnace (**REC010**) shall consume no more than 5,250 gallons of No. 6 fuel oil per hour and 4,200,000 gallons per year. The amount of fuel oil may increase beyond these limits in proportion to the sulfur content decrease below 1 percent, as long as compliance is maintained with condition 21 emission limits.  
 (9 VAC 5-80-110, 9 VAC 5-80-1100, and Conditions I-5 and I-30 of the 10/12/88 Permit)

20. **Fuel Throughput** - The No. 2 Recovery Furnace (**REC010**) shall consume no more than 750,000 scf of natural gas per hour and 600 million scf per year.  
 (9 VAC 5-80-110, 9 VAC 5-80-1100 and Condition I-5 of the 10/12/88 Permit)

21. **Emission Limits** - Emissions from the operation of the No. 2 Recovery Furnace (**REC010**) shall not exceed the limits specified below:

Particulate Matter	0.027 gr/dscf*	68.3 lbs/hr	173.8 tons/yr
PM-10	0.027 gr/dscf*	51.1 lbs/hr	130.0 tons/yr
Sulfur Dioxide (firing #6)		832.7 lbs/hr	350.0 tons/yr
Sulfur Dioxide (firing BLS only)		340.7 lbs/hr	350.0 tons/yr
Nitrogen Oxides(as NO <sub>2</sub> ) (firing BLS only)		171.2 lbs/hr	749.9 tons/yr
Nitrogen Oxides(as NO <sub>2</sub> ) (firing n.g.)		412.5 lbs/hr	796.5 tons/yr
Carbon Monoxide		546.5 lbs/hr	2,393.6 tons/yr
Volatile Organic Compounds		38.4 lbs/hr	140.0 tons/yr
Total Reduced Sulfur (as H <sub>2</sub> S) 5 ppm**		7.8 lbs/hr	34.2 tons/yr
Hydrogen Sulfide	5 ppm**	7.8 lbs/hr	34.2 tons/yr
Sulfuric Acid <sup>a</sup>		43.7 lbs/hr	7.3 tons/yr

\* corrected to 8% oxygen

\*\* corrected to 8% oxygen, 12 hour period average emission rate

<sup>a</sup>Based on emission factor 0.693 lb SO<sub>2</sub>/gal oil per NASCI SARA Handbook 95, and hourly 1.2 factor.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-410, 9 VAC 5-80-1100, 9 VAC 5-60-100, 9 VAC 5-80-1700, 40 CFR 60.280 et seq. (NSPS Subpart BB), 40 CFR 63.860 et seq. (MACT MM), Condition I-8 of the 10/12/88 Permit, and Condition 66 of the 11/3/03 Permit)

22. **Emission Limits** - During periods of operation when the No. 1 Recovery Furnace (**REC001**) is burning fuel oil, or a combination of fuel oil and black liquor, sulfur dioxide emissions from the No. 2 Recovery Furnace (**REC010**) shall not exceed 340.7 pounds per hour.

(9 VAC 5-80-110, 9 VAC 5-30-30, 9 VAC 5-80-1100, and Condition I-33 of the 10/12/88 Permit)

23. **Emission Limits** - Emissions from the operation of the No. 2 Recovery Furnace (**REC010**) shall not exceed the limits specified below:

Nitrogen Oxides(as NO <sub>2</sub> )	2.44 lbs/ADTP
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Carbon Monoxide	7.79 lbs/ADTP
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(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1800, and Condition I-8 of the 10/12/88 Permit)

24. **Visible Emission Limit** - Visible emissions from the No. 2 Recovery Furnace (**REC010**) shall not exceed thirty-five percent (35%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-50-410, 9 VAC 5-50-80, 40 CFR 60.280 et seq. (NSPS Subpart BB), 40 CFR 63.860 et seq. (MACT MM), and Condition I-18 of the 10/12/88 Permit)

25. **Emission Controls** - Particulate emissions from the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**) shall be controlled by a venturi scrubber. The scrubber shall be provided with adequate access for inspection.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-100, 9 VAC 5-80-1100, and Condition I-21 of the 10/12/88 Permit)

26. **Emission Limits** - Emissions from the operation of the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**) shall not exceed the limits specified below:

Particulate Matter	15.6 lbs/hr	68.4 tons/yr
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PM-10	14.0 lbs/hr	61.2 tons/yr
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Sulfur Dioxide	14.0 lbs/hr	61.4 tons/yr
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Total Reduced Sulfur (as H <sub>2</sub> S)	1.75 lbs/hr	7.7 tons/yr
--------------------------------------------	-------------	-------------

(9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-50-260, 9 VAC 5-50-410, 9 VAC 5-80-1100, 9 VAC 5-80-1700, 40 CFR 60.280 et seq. (NSPS Subpart BB), and Condition I-9 of the 10/12/88 Permit)

27. **Emission Limits** - Emissions from the operation of the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**) shall not exceed the limits specified below:
- |                                            |                                |
|--------------------------------------------|--------------------------------|
| Particulate Matter                         | 0.15 lbs/ton of BLS (dry wt)   |
| Total Reduced Sulfur (as H <sub>2</sub> S) | 0.0168 lbs/ton of BLS (dry wt) |
- (9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-50-260, 9 VAC 5-50-410, 9 VAC 5-80-1100, 9 VAC 5-80-1700, 40 CFR 60.280 et seq. (NSPS Subpart BB), and Condition I-9 of the 10/12/88 Permit)
28. **Visible Emission Limit** - Visible emissions from the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**) shall not exceed ten percent (10%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-50-80, 9 VAC 5-60-100, 9 VAC 5-80-1100, 40 CFR 63.860 et seq. (MACT MM), and Condition I-19 of the 10/12/88 Permit)
29. **Fuel** - The approved fuels for the modified No. 1 Lime Kiln (**REC045**) and the No. 2 Lime Kiln (**REC047**) are natural gas, No. 2 fuel oil, No. 6 fuel oil, noncondensable gases and/or condensed liquids from the odor control system, and on site generated on-spec and off-spec used oil. A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-110, 9 VAC 5-80-1100 and Condition 47 of the 11/3/03 Permit)
30. **Fuel Specification** - The maximum sulfur content of the oil to be burned in the modified No. 1 Lime Kiln (**REC045**) and the No. 2 Lime Kiln (**REC047**) shall not exceed 1.0 percent by weight per shipment as an approved alternative in this process as equivalent to meeting a fuel oil sulfur content limit of 0.5 percent. Fuel oil with a maximum 1.0 percent sulfur content has been determined through SO<sub>2</sub> emission measurements of this process to be equivalent to 0.5 percent sulfur content fuel oil for BACT for SO<sub>2</sub> emissions for this process. The permittee shall maintain records, including certifications, of all oil shipments purchased. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.  
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 48 of the 11/3/03 NSR Permit as amended 9/20/05)
31. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of No. 2 fuel oil. If fuel storage is separated for various units, this requirement shall apply only to the modified No. 1 Lime Kiln (**REC045**), and the No. 2 Lime Kiln (**REC047**). The permittee shall inform the Director, West Central Regional Office at least thirty days before a separation of fuel storage occurs. Each fuel supplier certification shall include the following:
- The name of the fuel supplier;
  - The date on which the No. 2 fuel oil was received;
  - The volume of No. 2 fuel oil delivered in the shipment;

d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil number 2; and

e. The sulfur content of the No. 2 fuel oil.

(9 VAC 5-80-110, 9 VAC 5-80-1100, and Condition 50 of the 11/3/03 Permit)

32. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of No. 6 fuel oil. If fuel storage is separated for various units, this requirement shall apply only to the modified No. 1 Lime Kiln (**REC045**) and the No. 2 Lime Kiln (**REC047**). The permittee shall inform the Director, West Central Regional Office at least thirty days before a separation of fuel storage occurs. Each fuel supplier certification shall include the following:

a. The name of the fuel supplier;

b. The date on which the No. 6 fuel oil was received;

c. The volume of No. 6 fuel oil delivered in the shipment;

d. The sulfur content of the No. 6 fuel oil.

e. Documentation of sampling of the oil indicating the location of the oil when the sample was drawn.

f. The method used to determine the sulfur content of the oil.

(9 VAC 5-80-110, 9 VAC 5-80-1100, and Condition 51 of the 11/3/03 Permit)

33. **Emission Controls** – Prior to modification, particulate emissions from the No. 1 Lime Kiln (**REC045**) shall be controlled by a venturi scrubber. The scrubber shall be provided with adequate access for inspection.

(9 VAC 5-80-110 and 9 VAC 5-80-1100)

34. **Emission Controls** – After modification, particulate emissions from No. 1 Lime Kiln (**REC045**) shall be controlled by an electrostatic precipitator (ESP). The ESP shall be provided with adequate access for inspection.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 9 of the 11/3/03 Permit)



35. **Throughput Limit** - After modification, the No. 1 Lime Kiln (**REC045**) shall process no more than 171,550 tons per year, calculated monthly as the sum of the previous consecutive 12 months' throughput of lime (as CaO).  
 (9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-80-1700, and Condition 40 of the 11/3/03 Permit)

36. **Emission Limits** – Prior to modification, emissions from the operation the No. 1 Lime Kiln (**REC045**) shall not exceed the limits specified below:

Particulate Matter	0.064 gr/dscf*	27.6 lbs/hr	113.6 tons/yr
PM-10	0.064 gr/dscf*	27.0 lbs/hr	111.7 tons/yr
Total Reduced Sulfur (as H <sub>2</sub> S) 20 ppm**		7.8 lbs/hr	34.2 tons/yr

\* corrected to 10% oxygen – effective March 13, 2004

\*\* corrected to 10% oxygen, 24 hour period average emission rate

(9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-80-1100, 9 VAC 5-80-1700, 40 CFR 63.860 et seq. (MACT MM), and Condition I-14 of the 10/12/88 Permit)

37. **Emission Limits** - After modification, emissions from the operation of the No. 1 Lime Kiln (**REC045**) shall not exceed the limits specified below:

Particulate Matter	0.020 gr/dscf*	10.3 lbs/hr	31.8 tons/yr
	0.015 gr/dscf* annual average		
PM-10	0.018 gr/dscf*	9.1 lbs/hr	28.1 tons/yr
	0.013 gr/dscf* annual average		
Sulfur Dioxide		29.6 lbs/hr	108.1 tons/yr
Nitrogen Oxides(as NO <sub>2</sub> )		117.5 lbs/hr	428.9 tons/yr
Carbon Monoxide		20.4 lbs/hr	74.6 tons/yr
Volatile Organic Compounds		22.6 lbs/hr	82.3 tons/yr
Total Reduced Sulfur (as H <sub>2</sub> S) 8 ppm**		2.5 lbs/hr	10.5 tons/yr
Hydrogen Sulfide**		2.0 lbs/hr	7.4 tons/yr

\* corrected to 10% oxygen

\* \*corrected to 10% oxygen, 12 hour period average emission rate

(9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-50-260, 9 VAC 5-60-100, 9 VAC 5-80-1100, 9 VAC 5-80-1700, 40 CFR 63.860 et seq. (MACT MM), and Condition 57 of the 11/3/03 Permit)

38. **Visible Emission Limit** –Visible emissions from the No. 1 Lime Kiln (**REC045**) shall not exceed twenty percent (20%) opacity, (a) except [before modification] during one six-minute period in any one hour in which visible emissions shall not exceed sixty percent (60%) opacity, or (b) except [after modification] during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
 (9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-50-80, 9 VAC 5-50-1100, and Condition 76 of the 11/3/03 Permit)
39. **Emission Controls** – Prior to NSPS BB modification, the No. 1 Lime Kiln (**REC045**) shall maintain a minimum temperature of 1200 °F and 0.5 seconds retention time while combusting noncondensable gases and/or condensed liquids from the odor control system.  
 (9 VAC 5-80-110, 9 VAC 5-50-410, and 40 CFR 60.280 et seq. (NSPS Subpart BB))
40. **Stack Height** - The No. 1 Lime Kiln (**REC045**) stack shall be a minimum of 65 meters (213 feet) above ground level.  
 (9 VAC 5-80-110, 9 VAC 5-30-30, 9 VAC 5-80-1100, and Condition I-45 of the 10/12/88 Permit)
41. **Emission Controls** –Particulate emissions from No. 2 Lime Kiln (**REC047**) shall be controlled by an electrostatic precipitator (ESP). The ESP shall be provided with adequate access for inspection.  
 (9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1100, 9 VAC 5-80-1700, and Condition 10 of the 11/3/03 Permit)
42. **Throughput Limit** - The No. 2 Lime Kiln (**REC047**) shall process no more than 262,800 tons per year, calculated monthly as the sum of the previous consecutive 12 months' throughput of lime (as CaO).  
 (9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-80-1700, and Condition 41 of the 11/3/03 Permit)
43. **Emission Limits** - Emissions from the operation of the No. 2 Lime Kiln (**REC047**) shall not exceed the limits specified below:
- |                                      |                               |              |               |
|--------------------------------------|-------------------------------|--------------|---------------|
| Particulate Matter                   | 0.020 gr/dscf*                | 14.8 lbs/hr  | 45.4 tons/yr  |
|                                      | 0.015 gr/dscf* annual average |              |               |
| PM-10                                | 0.018 gr/dscf*                | 13.1 lbs/hr  | 40.2 tons/yr  |
|                                      | 0.013 gr/dscf* annual average |              |               |
| Sulfur Dioxide                       |                               | 45.4 lbs/hr  | 165.6 tons/yr |
| Nitrogen Oxides(as NO <sub>2</sub> ) |                               | 104.4 lbs/hr | 381.1 tons/yr |
| Carbon Monoxide                      |                               | 31.3 lbs/hr  | 114.3 tons/yr |
| Volatile Organic Compounds           |                               | 34.5 lbs/hr  | 126.1 tons/yr |

Total Reduced Sulfur (as H <sub>2</sub> S) 8 ppm**	3.7 lbs/hr	16.0 tons/yr
Hydrogen Sulfide	3.1 lbs/hr	11.4 tons/yr

\* corrected to 10% oxygen

\*\* corrected to 10% oxygen, 12 hour period average emission rate

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-410, 9 VAC 5-60-100, 9 VAC 5-80-1100, 9 VAC 5-80-1700, 40 CFR 60.280 et seq. (NSPS Subpart BB), 40 CFR 63.860 et seq. (MACT MM), and Condition 58 of the 11/3/03 Permit)

44. **Visible Emission Limit** - Visible emissions from the No. 2 Lime Kiln (**REC047**) shall not exceed twenty percent (20%) opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during start-up, shut-down, and malfunction. (9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-50-80, 9 VAC 5-80-1100, and Condition 77 of the 11/3/03 Permit)

45. **Additional Visible Emission Limitations** – Effective March 13, 2004, visible emissions from the modified No. 1 Lime Kiln (**REC045**) and from the No. 2 Lime Kiln (**REC047**) shall comply with the following compliance provisions:

- a. Corrective action shall be implemented when the average of ten consecutive 6-minute averages exceed 20% opacity, and
- b. A violation of 40 CFR 63 Subpart MM [MACT MM] occurs when opacity is greater than twenty percent (20%) opacity for six percent (6%) or more of the operating time in any quarterly period.

(9 VAC 5-80-110 and 40 CFR 63.860 et seq. (MACT MM))

46. **Additional Visible Emission Limitations** – Effective March 13, 2004, visible emissions from the No. 1 Recovery Furnace (**REC001**), except as provided in the following condition, and the No. 2 Recovery Furnace (**REC010**) shall comply with the following compliance provisions:

- a. Corrective action shall be implemented when the average of ten consecutive 6-minute averages exceed 20% opacity, and
- b. A violation of 40 CFR 63 Subpart MM [MACT MM] occurs when opacity is greater than twenty percent (20%) opacity for six percent (6%) or more of the operating time in any quarterly period.

(9 VAC 5-80-110 and 40 CFR 63.860 et seq. (MACT MM))

47. **Additional Visible Emission Limitations** – The No. 1 Recovery Furnace may use alternative monitoring approved by USEPA and would be subject to USEPA's approval conditions as an alternative monitoring methodology instead of a continuous opacity monitor for the No. 1 Recovery Furnace. In addition, the facility shall comply with the following:

- a. Corrective Action shall be implemented when any three hour average value operating parameter is outside the range of parameter values established during the initial or most recent performance test that confirms compliance.
- b. A violation occurs when six or more 3-hour values within any six month reporting period are outside the range of parameter values established during the initial or most recent performance test that confirms compliance.
- c. For the purposes of determining the number of monitoring exceedances in paragraph (b), no more than one exceedance will be attributed in any given 24-hour period.

(9 VAC 5-80-110 and 40 CFR 63.860 et seq. (MACT MM))

48. **Additional Monitoring Limitations** – Effective March 13, 2004, The facility shall comply with the following monitoring parameter standards for the No. 1 Recovery Smelt Dissolving Tanks (**REC002 & REC003**), the No. 2 Recovery Smelt Dissolving Tank (**REC011**), and the scrubber for the No. 1 Lime Kiln (**REC045**).

- a. Corrective Action shall be implemented when any three hour average value operating parameter is outside the range of parameter values established during the initial or most recent performance test that confirms compliance.
- b. A violation occurs when six or more 3-hour values within any six month reporting period are outside the range of parameter values established during the initial or most recent performance test that confirms compliance.
- c. For the purposes of determining the number of monitoring exceedances in paragraph (b), no more than one exceedance will be attributed in any given 24-hour period.

(9 VAC 5-80-110 and 40 CFR 63.860 et seq. (MACT MM))

## **B. Monitoring**

1. **Monitoring Devices** - For the No. 1 Recovery Furnace (**REC001**) and the No. 1 Lime Kiln (**REC045**) before modification, the facility shall maintain, and operate TRS and oxygen continuous monitoring systems and keep records and report in accordance with 9 VAC 5-40-1770 and 1780. The facility shall calculate and record on a daily basis 24-hour average TRS and oxygen concentrations, and the TRS concentration corrected to 8 volume percent oxygen for the recovery furnace and the TRS concentration corrected to 10 volume percent oxygen for the lime kiln. All periods of excess emissions shall be reported on the quarterly/ semi-annual reports. (9 VAC 5-80-110 and 9 VAC 5-40-1660)
2. **Monitoring Devices** - For the No. 2 Recovery Furnace (**REC010**), the modified No. 1 Lime Kiln (**REC045**), and the No. 2 Lime Kiln (**REC047**) the facility shall maintain, and operate TRS and oxygen continuous monitoring systems and keep records and report in accordance with 9 VAC 5-40-1770 and 1780 and 40 CFR 60.284 (NSPS Subpart BB monitoring). The facility shall calculate and record on a twice daily basis 12-hour average TRS and oxygen concentrations, and the TRS concentration corrected to 8 volume percent oxygen for the recovery furnace and the TRS concentration corrected to 10 volume percent oxygen for the lime kiln(s). All periods of excess emissions shall be reported on the quarterly/ semi-annual reports. For the recovery furnace, periods of excess emissions shall not be indicative of a *violation* provided periods of excess emissions do not exceed one (1) percent per quarter for TRS, excluding periods of startup, shutdown, malfunction, and periods when the emission unit is not operating. (9 VAC 5-80-110, 9 VAC 5-40-1660, 9 VAC 5-50-410, 40 CFR 60.283 and 60.284 (NSPS Subpart BB), Condition I-39 of 10/12/88 Permit, and Conditions 23 and 24 of the 11/3/03 Permit)
3. **Monitoring Devices** – For the No. 1 Lime Kiln (**REC045**), prior to modification, during those period when the kiln is used to combust noncondensable gases and/or condensed liquids from the odor control system, the facility shall maintain and operate a Temperature Monitoring System, keep records, and report in quarterly/semi-annual reports as excess emissions, all periods in excess of 5 minutes and their duration during which the combustion temperature at the point of incineration is less than 1200 °F. (9 VAC 5-80-110, 9 VAC 5-50-410, and 40 CFR 60.280 et seq. (NSPS Subpart BB))
4. **Monitoring Devices** - For the No. 2 Recovery Furnace (**REC010**) the facility shall maintain, and operate continuous opacity monitoring systems and keep records and report in accordance with 40 CFR 60.284 (NSPS Subpart BB monitoring). All periods of excess emissions shall be reported on the quarterly/ semi-annual reports. (9 VAC 5-80-110, 9 VAC 5-50-410, 40 CFR 60.283 and 60.284 (NSPS Subpart BB), and Condition I-39 of 10/12/88 Permit)

5. **Monitoring Devices** - For the No. 2 Recovery Furnace (**REC010**) the facility shall maintain, and operate continuous sulfur dioxide monitoring systems and keep records. All periods of excess emissions shall be reported on the quarterly/ semi-annual reports.  
(9 VAC 5-80-110 and Condition I-39 of 10/12/88 Permit)
6. **Monitoring Devices** – Effective March 13, 2004, for the No. 1 Recovery Furnace (**REC001**), except as provided in the next condition, the No. 2 Recovery Furnace (**REC010**), the No. 2 Lime Kiln (**REC047**), and, after modification, the No. 1 Lime Kiln (**REC045**) the facility shall maintain, and operate continuous opacity monitoring systems and keep records and report in accordance with 40 CFR 63.860 (MACT Subpart MM monitoring). All periods of excess emissions shall be reported on the quarterly/ semi-annual reports.  
(9 VAC 5-80-110, 9 VAC 5-60-100, and 40 CFR 63.860 et seq. (MACT Subpart MM))
7. **Monitoring Devices** – The No. 1 Recovery Furnace may use alternative monitoring approved by USEPA and would be subject to USEPA's approval conditions.  
(9 VAC 5-80-110, 9 VAC 5-60-100, and 40 CFR 63.860 et seq. (MACT Subpart MM))
8. **Monitoring** – Each electrostatic precipitator on any recovery furnace or lime kiln shall be visually inspected on a weekly or more frequent basis for physical integrity and operating conditions and shall be equipped with such monitors as may be requested by VDEQ.  
(9 VAC 5-80-110 and 9 VAC 5-40-900)
9. **Monitoring Devices** – For the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**) the facility shall continuously monitor the pressure drop across the scrubber and the scrubbing liquid supply pressure to the control equipment. Data processing and record keeping is required in accordance with NSPS subpart BB.  
(9 VAC 5-80-110, 9 VAC 5-50-410, 40 CFR 60.283 and 60.284 (NSPS Subpart BB), and Condition I-40 of 10/12/88 Permit)
10. **Monitoring Devices** – Effective March 13, 2004, for the No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**), No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**), and the No. 1 Lime Kiln (**REC045**) a continuous monitoring system shall be operated to determine and record the pressure drop across the scrubbers and the scrubbing liquid flow rate to the control equipment as specified in 40 CFR 63 Subpart MM [MACT MM]. Data processing and record keeping is required in accordance with MACT MM.  
(9 VAC 5-80-110, 9 VAC 5-60-100, and 40 CFR 63.860 et seq. (MACT MM))

11. **Opacity Monitoring** - The permittee shall conduct a weekly observation of the No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**), the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**), and, prior to modification, the No. 1 Lime Kiln (**REC045**) and, if an alternate monitoring plan without a COMS is approved by USEPA, the No. 1 Recovery Furnace (**REC001**), using a brief modified 40 CFR 60 Appendix A Method 22 evaluation (excludes condensed water vapor). If any visible emission is observed, the visible emission condition shall be addressed as soon as possible, such that no visible emissions are observable, and recorded or a 40 CFR 60 Appendix A Method 9 evaluation shall be performed to determine if the opacity source is in compliance with the conditions of this permit. The Method 9 evaluation shall be conducted for at least six (6) minutes. If any of these six (6) minute averages exceed the unit's opacity limitation, a visible emissions evaluation (VEE) shall be conducted on these emissions for at least 3 six minute periods (at least 18 minutes). The visible emission observations, VEE results, and corrective actions shall be recorded. If an emission unit does not operate during a weekly period when daylight or weather would allow an acceptable visible observation, this shall be noted on the records of this monitoring activity.

(9 VAC 5-80-110)

### C. Recordkeeping

**On Site Records** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall, if requested, be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Hourly, monthly and annual consumption of No. 6 fuel oil in the No. 1 Recovery Furnace (**REC001**), annual consumption calculated monthly as the sum of each consecutive 12 month period. (Hourly only for sulfur content greater the 0.5%.)
2. Monthly and annual consumption of black liquor solids in the No. 1 Recovery Furnace (**REC001**), annual consumption calculated monthly as the sum of each consecutive 12 month period.
3. Hourly, monthly and annual consumption of No. 6 fuel oil in the No. 2 Recovery Furnace (**REC010**), annual consumption calculated monthly as the sum of each consecutive 12 month period. (Hourly only for sulfur content greater the 0.5%.)
4. Hourly, monthly and annual consumption of natural gas in the No. 2 Recovery Furnace (**REC010**), annual consumption calculated monthly as the sum of each consecutive 12 month period. Hourly stipulation applies only when firing exclusively with natural gas.

5. Monthly and annual consumption of black liquor solids in the No. 2 Recovery Furnace (**REC010**), annual consumption calculated monthly as the sum of each consecutive 12 month period.
6. Monthly and annual consumption of natural gas, No. 2 fuel oil, and No. 6 fuel oil in the No. 1 Lime Kiln (**REC045**) and the No. 2 Lime Kiln (**REC047**), annual consumption calculated monthly as the sum of each consecutive 12 month period.
7. All fuel supplier certifications.
8. Monthly and annual production of lime in the No. 1 Lime Kiln (**REC045**), annual production calculated monthly as the sum of each consecutive 12 month period.
9. Monthly and annual production of lime in the No. 2 Lime Kiln (**REC047**), annual production calculated monthly as the sum of each consecutive 12 month period.
10. Records from the continuous TRS and oxygen monitoring systems on the No. 1 Recovery Furnace (**REC001**), the No. 2 Recovery Furnace (**REC010**), the No. 1 Lime Kiln (**REC045**), and the No. 2 Lime Kiln (**REC047**).
11. Records from the continuous opacity monitoring systems on the No. 1 Recovery Furnace (**REC001**) (or alternate monitoring method if approved by USEPA), the No. 2 Recovery Furnace (**REC010**), the No. 2 Lime Kiln (**REC047**), and, after modification, the No. 1 Lime Kiln (**REC045**).
12. Records of continuous temperature monitoring of the No. 1 Lime Kiln (**REC045**) for any period when the kiln is used to combust noncondensable gases and/or condensed liquids from the odor control system, prior to modification of the kiln.
13. Records of the pressure drop across the scrubber and the scrubbing liquid flow rate for the No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**), the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**), and, prior to modification, the No. 1 Lime Kiln (**REC045**) and records of the scrubbing liquid supply pressure for the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**).
14. Records of the weekly inspection and any operating conditions subsequently requested by VDEQ for the electrostatic precipitators, Recovery Furnaces 1 & 2 (**REC001 & REC010**).
15. Monthly and annual measured or estimated emissions of particulate matter, PM-10, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, and TRS from each recovery furnaces (**REC001, & REC010**). Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.



16. Monthly average emission rates of nitrogen oxides and carbon monoxide per ton of air dried pulp from the No. 2 Recovery Furnace **(REC010)**.
17. Annual measured or estimated emissions of particulate matter, PM-10, sulfur dioxide, and TRS from the smelt dissolving tanks **(REC002, REC003, & REC011)** and monthly averages of pounds of particulate matter and TRS per ton of black liquor solids processed. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.
18. Annual measured or estimated emissions of particulate matter, PM-10, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, and TRS from each lime kiln **(REC045, & REC047)**. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.
19. At the request of DEQ, measured or estimated monthly and annual emissions of volatile organic compounds, particulate matter, PM-10, carbon monoxide, nitrogen oxides, sulfur dioxide, and total reduced sulfur from the recovery furnaces, smelt dissolving tanks and lime kilns, as a group, using emission factors acceptable to VDEQ.
20. Records of the modified Method 22 and Method 9 opacity observations used to show compliance with the visible emissions limitations in this section for emissions units without continuous opacity monitors (smelt dissolving tanks, No. 1 lime kiln before modification, probably No. 1 recovery furnace).
21. Results of all stack tests, visible emission evaluations and performance evaluations.
22. Continuous monitoring system data, including calibrations and quality assurance checks.
23. Records of scheduled and unscheduled maintenance, and operator training for pollution control equipment.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, 40 CFR 60.280 et seq. (NSPS Subpart BB), 40 CFR 63.860 et seq. (MACT Subpart MM), Condition II-6 of the 10/12/88 Permit and/or Condition 105 of 11/3/03 Permit)

#### **D. Testing**

1. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110, Condition II-4 of the 10/12/88 Permit, and Condition 28 of the 11/3/03 Permit)

2. **Stack Tests** – At least once during the term of this permit, the permittee shall conduct performance tests for particulate matter from the No. 1 Recovery Furnace (**REC001**) to demonstrate compliance with the emission limits contained in this permit. Additionally upon request by the DEQ, the permittee shall conduct performance tests for particulate matter, PM-10, sulfur dioxide and/or carbon monoxide from the No. 1 Recovery Furnace (**REC001**) to demonstrate compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with The New Source Review permit.  
(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 99 of the 11/3/03 Permit)
3. **Stack Tests** – At least once during the term of this permit and additionally upon request by the DEQ, the permittee shall conduct performance tests for particulate matter and TRS from the No. 1 Recovery Furnace Smelt Dissolving Tanks (**REC002 & REC003**) to demonstrate compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with The New Source Review permit.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)
4. **Stack Tests** – At least once during the term of this permit the permittee shall conduct performance tests for particulate matter from the No. 2 Recovery Furnace (**REC010**) to demonstrate compliance with the emission limits contained in this permit. Additionally upon request by the DEQ, the permittee shall conduct performance tests for particulate matter, PM-10, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, TRS, hydrogen sulfide, and/or sulfuric acid from the No. 2 Recovery Furnace (**REC010**) to demonstrate compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the

test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with The New Source Review permit.  
(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 100 of the 11/3/03 Permit)

5. **Stack Tests** – At least once during the term of this permit and additionally upon request by the DEQ, the permittee shall conduct performance tests for particulate matter, sulfur dioxide, and TRS from the No. 2 Recovery Furnace Smelt Dissolving Tank (**REC011**) to demonstrate compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with The New Source Review permit.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)
6. **Stack Tests** – At least once during the term of this permit, the permittee shall conduct performance tests for particulate matter from the No. 1 Lime Kiln (**REC045**) to demonstrate compliance with the emission limits contained in this permit. Additionally upon request by the DEQ, the permittee shall conduct performance tests for particulate matter and/or PM-10 from the No. 1 Lime Kiln (**REC045**) to demonstrate compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with The New Source Review permit.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)

7. **Initial Performance Stack Tests** – Initially within 180 days of modification the permittee shall conduct performance tests for particulate matter, concurrent visible emissions evaluations as much as possible, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, TRS, and hydrogen sulfide from the No. 1 Lime Kiln (**REC045**) to demonstrate compliance with the emission limits contained in this permit. Additionally upon request by the DEQ, the permittee shall conduct performance tests for particulate matter, PM-10, sulfur dioxide, nitrogen oxides, carbon monoxide, and/or volatile organic compounds from the No. 1 Lime Kiln (**REC047**) to demonstrate compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with The New Source Review permit.  
(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 86 of the 11/3/03 Permit)
8. **Stack Tests** – At least once during the term of this permit the permittee shall conduct performance tests for particulate matter and sulfur dioxide from the No. 2 Lime Kiln (**REC047**) to demonstrate compliance with the emission limits contained in this permit. Additionally upon request by the DEQ, the permittee shall conduct performance tests for particulate matter, PM-10, sulfur dioxide, nitrogen oxides, carbon monoxide, and/or volatile organic compounds from the No. 2 Lime Kiln (**REC047**) to demonstrate compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with The New Source Review permit.  
(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 96 of the 11/3/03 Permit)

9. **CEMS/COMS Quality Control Program** – The CEMS and COMS shall meet all applicable requirements, including quality control requirements.

(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-50-410, 9 VAC 5-60-100, and Condition 102 of the 11/3/03 Permit)

10. **Test Methods** If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - The test method is subject to DEQ approval at the time of the test (except Method 9 - 40 CFR Part 60, Appendix A)
Various Pollutants	Method subject to DEQ approval at the time of testing.
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

#### E. Reporting

The permittee shall make all reports as required by 40 CFR 60 Subpart BB (NSPS BB, Standards of Performance for Kraft Pulp Mills) and 40 CFR Part 63 Subpart MM (MACT MM, National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft...Pulp Mills). This section is subject to periodic reporting for CEMS and COMS quality assurance. Other reporting requirements for this section are satisfied by the recordkeeping requirements in this section and by the reporting and recordkeeping requirements of the Facility Wide Conditions and the General Conditions sections.

## VI. Bleaching Requirements

### A. Limitations

1. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, or where reporting time periods and report dates differ, each MACT Subpart S affected source shall be operated in compliance with the requirements of 40 CFR Part 63, Subpart S (MACT S, National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry).  
(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.440 et seq. (MACT S))

2. **Emission Controls** - The permittee shall employ elemental chlorine free (ECF) bleaching technologies for "A-Unit" and "B-Unit" Bleach Lines (**BPM001 & BPM002**) and for A, C, and D Bleach Lines (**BPM011, BPM012, & BPM013**). Bleaching technologies employing hypochlorite and/or elemental chlorine are prohibited.  
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-100, 40 CFR 63.440 et seq., and Condition 8 of the 11/3/03 Permit)

3. **Emission Limits** - Emissions from the operation of all bleaching processes combined, including all reactors, filtrate tanks and washer hoods, shall not exceed the limits specified below :

Carbon Monoxide	271.8 lbs/hr	992.1 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitation has not been exceeded.

(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 61 of the 11/3/03 Permit)

4. **Emission Controls** - The A-Unit Bleach Line (**BPM001**) and the B-Unit Bleach Line (**BPM002**), at each bleaching stage where chlorinated compounds (such as chlorine dioxide) are introduced, shall be enclosed and vented into a closed-vent system meeting the requirements of 40 CFR 63.450 and routed to a control device (scrubber) that "achieves a treatment device outlet concentration of 10 parts per million or less by volume of total chlorinated HAP". Excess emissions are identified as periods when the scrubber flow, on a 3-hour rolling average basis, is below the flow established during the initial or most recent performance test that demonstrates compliance.  
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-100, and 40 CFR 63.445 et seq.)

5. **Process Limit** - The C-Bleach line (**BPM012**) shall process no more than 438,000 ODTP per year, calculated monthly as the sum of the previous consecutive 12 months' throughput.

(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 36 of the 11/3/03 Permit)

6. **Emission Limits** - Emissions from the operation of the C-Bleach Line (**BPM012**) shall not exceed the limits specified below:

Volatile Organic Compounds	18.6 lbs/hr	67.9 tons/yr
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Total Chlorinated Hazardous Air Pollutants	10 ppm
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These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded. Compliance with these emission limits shall also be determined as stated in the Testing section, below.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-100, 40 CFR 63.445 et seq., and Condition 60 of the 11/3/03 Permit)

7. **Process Limit** - The proposed A-Bleach line (**BPM011**) shall process no more than 438,000 ODTP per year, calculated monthly as the sum of the previous consecutive 12 months' throughput.

(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 36 of the 11/3/03 Permit)

8. **Emission Limits** - Emissions from the operation of the Proposed A-Bleach Line (**BPM011**) shall not exceed the limits specified below:

Volatile Organic Compounds	18.6 lbs/hr	67.9 tons/yr
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Total Chlorinated Hazardous Air Pollutants	10 ppm
--------------------------------------------	--------

These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded. Compliance with these emission limits shall also be determined as stated in the Testing section, below.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-100, 40 CFR 63.445 et seq., and Condition 60 of the 11/3/03 Permit)

9. **Process Limit** - The proposed D-Bleach line (**BPM013**) shall process no more than 438,000 ODTP per year, calculated monthly as the sum of the previous consecutive 12 months' throughput.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 36 of the 11/3/03 Permit)

10. **Emission Limits** - Emissions from the operation of the Proposed D-Bleach Line (**BPM013**) shall not exceed the limits specified below:

Volatile Organic Compounds	18.6 lbs/hr	67.9 tons/yr
Total Chlorinated Hazardous Air Pollutants		10 ppm

These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded. Compliance with these emission limits shall also be determined as stated in the Testing section, below.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-100, 40 CFR 63.445 et seq., and Condition 60 of the 11/3/03 Permit)

11. **Production** - The production of chlorine dioxide from the No. 2 Chlorine Dioxide Plant (**CLO004**) shall not exceed 29,200 tons per year, calculated monthly as the sum of the previous consecutive 12 months' production.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 30 of the 11/3/03 Permit)

## **B. Monitoring**

1. **Monitoring Devices** – The “A-Unit” Bleach Line (**BPM001**) and the “B-Unit” Bleach Line (**BPM002**) shall have a continuous monitoring and recording system, as specified in 40 CFR 63 Subpart S, to measure the following: (1) the oxidation/reduction potential of the gas scrubber effluent; (2) the gas scrubber vent gas inlet flow rate or fan motor load (USEPA approved alternative); (3) the gas scrubber liquid influent flow rate. The monitoring devices shall be installed in an accessible location and shall be maintained by the permittee such that they are in proper working order.  
(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.453 et seq. (MACT S))



2. **Monitoring Devices** – The enclosure and closed vent gas collection system associated with the “A-Unit” Bleach Line (**BPM001**) and the “B-Unit” Bleach Line (**BPM002**) shall be monitored, per 40 CFR 63 Subpart S, as follows:
- a. A visual inspection of the enclosure and closed vent gas collection system associated with the “A-Unit” Bleach Line (**BPM001**) and the “B-Unit” Bleach Line (**BPM002**) shall be performed at least once every thirty days.
  - b. An annual inspection shall be conducted on the enclosure and closed vent gas collection system associated with the “A-Unit” Bleach Line (**BPM001**) and the “B-Unit” Bleach Line (**BPM002**) to demonstrate that each opening is maintained at negative pressure.

(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.440 et seq. (MACT S))

### C. Recordkeeping

**On Site Records** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall, if requested, be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Records of the “A-Unit” Bleach Line (**BPM001**) and “B-Unit” Bleach Line (**BPM002**) gas scrubber effluent oxidation/reduction potential.
2. Records of the “A-Unit” Bleach Line (**BPM001**) and “B-Unit” Bleach Line (**BPM002**) gas scrubber fan motor load or gas inlet flow measurement per approval of USEPA.
3. Records of the A-Unit Bleach Line (**BPM001**) and B-Unit Bleach Line (**BPM002**) scrubber liquid influent flow rate.
4. Results of negative pressure tests for each enclosure opening of the A-Unit Bleach Line (**BPM001**) and B-Unit Bleach Line (**BPM002**).
5. “A-Unit” Bleach Line (**BPM001**) and “B-Unit” Bleach Line (**BPM002**), and C Bleach Line (**BPM012**) monthly and annual throughput expressed in ODTP. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period.
6. Monthly and annual estimated VOC emissions from the C Bleach Line (**BPM012**), based on emission factors acceptable to VDEQ. Annual estimated emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.
7. No. 1 Chlorine Dioxide Plant (**CLO001**) and No. 2 Chlorine Dioxide Plant (**CLO004**) annual production of chlorine dioxide for each plant. Annual production shall be calculated monthly as the sum of the previous consecutive 12 month period.

8. Estimated annual carbon monoxide emissions from the bleaching process, as a whole, based on emission factors acceptable to VDEQ. Annual estimated emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.
9. If constructed, A Bleach Line (**BPM011**) and D Bleach Line (**BPM013**) monthly and annual throughput expressed in ODTP. Annual throughput shall be calculated monthly as the sum of the previous consecutive 12 month period.
10. If constructed, annual estimated VOC emissions from the A Bleach Line (**BPM011**) and D Bleach Line (**BPM013**), based on emission factors acceptable to VDEQ. Annual estimated emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.440 et seq., Condition II-6 of the 10/12/88 Permit, and/or Condition 105 of the 11/3/03 Permit)

#### **D. Testing**

1. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations or in accordance with the applicable performance specification (reference 40 CFR Part 60, Appendices A&B).  
(9 VAC 5-50-30, 9 VAC 5-80-110, Condition II-4 of the 10/12/88 Permit, and/or Condition 28 of the 11/3/03 Permit)
2. **Negative Pressure Tests** – Annually and upon request by the VDEQ, the permittee shall conduct a negative pressure test for each opening of the total enclosure for the A-Unit Bleach Line (**BPM001**) and B-Unit Bleach Line (**BPM002**). The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the requirements of this permit. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test.  
(9 VAC 5-80-110, and 40 CFR 63.440 et seq.)

3. **Stack Tests** – At least once during the term of this permit and additionally upon request by the DEQ, the permittee shall conduct performance tests to demonstrate that emissions from the C Bleach Line (**BPM012**) contain 10 ppm or less of chlorinated Hazardous Air Pollutants. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110, 9 VAC 5-60-100, and 40 CFR 63.440 et seq.)

4. **Stack Tests** – If constructed, initially and additionally upon request by the DEQ, the permittee shall conduct performance tests to demonstrate that emissions from the A Bleach Line (**BPM011**) or the D bleach Line (**BPM013**) contain 10 ppm or less of chlorinated Hazardous Air Pollutants. The tests shall be performed, and demonstrate compliance, within 60 days after notice by the Director, West Central Regional Office, that the Department has reason to believe that the facility or a portion of the facility is not in compliance with the emission limits of this permit. The details of the tests shall be arranged with the Director, West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110, 9 VAC 5-60-100, and 40 CFR 63.440 et seq.)

5. **Test Methods** - If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - The test method is subject to DEQ approval at the time of the test (except Method 9 - 40 CFR Part 60, Appendix A)
Various Pollutants	Method subject to DEQ approval at the time of testing.
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## E. Reporting

The permittee shall make all reports as required by 40 CFR Part 63 Subpart S (MACT S, National Emission Standards for Hazardous Air Pollutants from the Pulp and paper Industry). Other reporting requirements for this section are satisfied by the recordkeeping requirements in this section and by the reporting and recordkeeping requirements of the Facility Wide Conditions and the General Conditions sections.

## VII. Paper Machine Requirements

### A. Limitations

1. **Processing** - The No. 2 Paper Machine (**PM2001**) shall process no more than 730,000 ADFTP per year, calculated monthly as the sum of the previous consecutive 12 months' throughput.  
((9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 33 of the 11/3/03 Permit))
2. **Emission Limits** - Emissions from the operation of the No. 2 Paper Machine (**PM2001**) shall not exceed the limits specified below:  

Volatile Organic Compounds	42.0 lbs/hr	153.3 tons/yr
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Annual emissions calculated monthly as the sum of the previous consecutive twelve month period.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 52 of the 11/3/03 Permit)
3. **Visible Emission Limit** - Visible emissions from the No. 2 Paper Machine (**PM2001**) shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A), except for one six minute period in any one hour which shall not exceed 30 percent opacity. This condition applies at all times except during startup, shutdown and malfunction.  
(9 VAC 5-80-110, 9 VAC 5-50-80, and Condition 80 of the 11/3/03 Permit)
4. **Condition deleted in 2005** – Original condition referenced the requirements of 40 CFR Part 63 Subpart JJJJ (MACT JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating). This MACT has been determined to not be applicable to this facility per 11-19-03 EPA interpretation from Michael S. Alushin to the American Forest & Paper Association, due to being on-line coating on paper making machines.
5. **Condition deleted in 2005** Original condition was a requirement of 40 CFR Part 63 Subpart JJJJ (MACT JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating). This MACT has been determined to not be applicable to this facility per 11-19-03 EPA interpretation from Michael S. Alushin to the American Forest & Paper Association, due to being on-line coating on paper making machines.

## **B. Monitoring**

1. Condition deleted in 2005 – Original condition was a requirement of 40 CFR Part 63 Subpart JJJJ (MACT JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating). This MACT has been determined to not be applicable to this facility per 11-19-03 EPA interpretation from Michael S. Alushin to the American Forest & Paper Association, due to being on-line coating on paper making machines.

## **C. Recordkeeping**

**On Site Records** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall, if requested, be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. No. 2 Paper Machine (**PM2001**) annual production. Annual production shall be calculated monthly as the sum of the previous consecutive 12 month period.
2. Condition deleted in 2005 – Original condition was a requirement of 40 CFR Part 63 Subpart JJJJ (MACT JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating). This MACT has been determined to not be applicable to this facility per 11-19-03 EPA interpretation from Michael S. Alushin to the American Forest & Paper Association, due to being on-line coating on paper making machines.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

## **D. Testing**

1. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110, Condition II-4 of the 10/12/88 Permit, and/or Condition 28 of the 11/3/03 Permit)
2. **Stack Tests** - Upon request and proper notification by the DEQ, the permittee shall conduct additional performance tests for volatile organic compounds from the No. 2 Paper Machine to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Director, West Central Regional Office.  
(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 93 of the 11/3/03 Permit)

3. **Condition deleted in 2005** – Original condition was a requirement of 40 CFR Part 63 Subpart JJJJ (MACT JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating). This MACT has been determined to not be applicable to this facility per 11-19-03 EPA interpretation from Michael S. Alushin to the American Forest & Paper Association, due to being on-line coating on paper making machines.
4. **Test Methods** - If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - The test method is subject to DEQ approval at the time of the test (except Method 9 - 40 CFR Part 60, Appendix A)
Various Pollutants	Method subject to DEQ approval at the time of testing.
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

#### E. Reporting

Reporting requirements for this section are satisfied by the recordkeeping requirements in this section and by the reporting and recordkeeping requirements of the Facility Wide Conditions and the General Conditions sections.

## VIII. Miscellaneous Process Equipment Requirements

### A. Limitations

1. **Emission Controls** - Particulate emissions from haul road traffic shall be controlled by maintaining the surface on 1.9 miles of haul road paved for particulate netting, per the 1995 application.

(9 VAC 5-50-260, 9 VAC 5-80-1700, and Condition 17 of the 11/3/03 Permit)

2. **Emission Limits** - Emissions from the 1.9 miles of haul road paved in 1997 for PSD netting shall not exceed the limits specified below:

Particulate Matter	42.4 tons/yr
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PM-10	8.3 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded.

(9 VAC 5-80-110, 9 VAC 5-80-1700, 9 VAC 5-50-260, and Condition 62 of the 11/3/03 Permit)

3. **Emission Controls** - Particulate emissions from woodyard road traffic shall be controlled by maintaining the surface on 1.0 miles of woodyard road paved for particulate netting, per the 1995 application.

(9 VAC 5-50-260, 9 VAC 5-80-1700, and Condition 18 of the 11/3/03 Permit)

4. **Emission Limits** - emissions from the 1.0 miles of woodyard road paved in 1999 for PSD netting shall not exceed the limits specified below:

Particulate Matter	191.3 tons/yr
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PM-10	43.7 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits unless the permittee can demonstrate to the satisfaction of the Board that the above emission limitations have not been exceeded.

(9 VAC 5-80-110, 9 VAC 5-80-1700, 9 VAC 5-50-260, and Condition 63 of the 11/3/03 Permit)

## B. Monitoring

1. **Monitoring** – The permittee shall measure the traffic on the haul roads and woodyard roads or otherwise devise an estimate of such traffic, based on levels of production, acceptable to VDEQ.  
(9 VAC 5-80-110 and 9 VAC 5-80-1700)

## C. Recordkeeping

**On Site Records** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall, if requested, be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. An annual record, or equivalent estimate, of the traffic on the woodyard and haul roads. Annual traffic shall be calculated monthly as the sum of the previous consecutive 12 month period.
2. Annual estimates of particulate emissions from haul roads and woodyard roads, based on emission factors acceptable to VDEQ. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, 9 VAC 5-80-1700, and Condition 105 of the 11/3/03 Permit)

## D. Testing

1. **Test Methods** - If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - The test method is subject to DEQ approval at the time of the test (except Method 9 - 40 CFR Part 60, Appendix A)
Various Pollutants	Method subject to DEQ approval at the time of testing.
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## E. Reporting

Reporting requirements for this section are satisfied by the recordkeeping requirements in this section and by the reporting and recordkeeping requirements of the Facility Wide Conditions and the General Conditions sections.



## **IX. Facility Wide Conditions**

### **A. Limitations**

1. **PSD Netting Compliance** - At no time during the expansion shall contemporaneous emission changes result in a significant net emission increase pursuant to 40 CFR §52.21 and 9 VAC 5-170-160. The permittee shall notify the Director, West Central Region, of intended deviations from the order of emission increases and reductions as proposed in the March 29, 1995, and June 18, 1998, permit applications, as amended. (9 VAC 5-80-110, 9 VAC 5-170-160, 9 VAC 5-80-1700, and Condition 3 of the 11/3/03 Permit)
2. **Revised BACT Standards** - New or modified sources, addressed herein, for which construction or modification has not commenced by October 29, 2002, may be required to demonstrate the adequacy of any previous determination of best available control technology (BACT) for the source. The details of the BACT determination shall be arranged with the Director, West Central Region.  
(9 VAC 5-80-110, 9 VAC 5-50-280, and Condition 4 of the 11/3/03 Permit)
3. **MACT Standards** – Start-up, shut-down, and malfunction plans shall be developed and implemented by the permittee for all applicable equipment in accordance with all applicable MACTs by the appropriate compliance dates. A copy of each plan shall be kept on file at the facility. Each superseded/ subsequently revised plan shall be kept on file for at least 5 years.  
(9 VAC 5-80-110, 9 VAC 5-60-100, and 40 CFR 63 Subparts S, MM, and JJJJ)
4. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the board, reduce the level of operation at the facility if the board determines that this is necessary to prevent a violation of any primary ambient air quality standard. Under worst case conditions, the board may order that the owner shut down the facility, if there is no other method of operation to avoid a violation of the primary ambient air quality standard. In such cases, the facility shall not be returned to operation until it and the associated air pollution control equipment are able to operate without violation of any primary ambient air quality standard.  
(9 VAC 5-80-110, 9 VAC 5-20-180 I., and Condition 111 of the 11/3/03 Permit)
5. **Maintenance/Operating Procedures** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:
  - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
  - b. Maintain an inventory of spare parts.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110, 9 VAC 5-50-20 and 9 VAC 5-170-160, and Condition 112 of the 11/3/03 Permit)

6. **Permit Invalidation** - The NSR permit dated November 3, 2003, which superceded the October 29, 1999 NSR permit, shall become invalid, unless an extension is granted by the DEQ, if:

a. A program of continuous modification and/or construction is not commenced before the latest of the following:

(1) 18 months from the date of the October 29, 1999 NSR permit;

(2) Nine months from the date that the last permit or other authorization was issued from any other governmental agency;

(3) Nine months from the date of the last resolution of any litigation concerning any such permits or authorization; or

b. A program of modification and construction is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.

(9 VAC 5-80-110, 9 VAC 5-80-1210, and Condition 108 of the 11/3/03 Permit)

7. **Stack Height** - Stack heights shall be a minimum of 65 meters (213 feet) above ground level for the following processes:

Pulp Mill:

#REC045 No. 1 Lime Kiln - also refr. Recovery section of permit.

#REC035 No. 20 Slaker

Note that the 1988 NSR permit stack height requirements no longer apply to the following: The No. 12 and No. 16 Slakers, unless returned to treating pulping liquor, the No. 8 Slaker and Lime Calciner because they are gone, and the 1988 NSR permit New Bleach Line/New Bleach Room Scrubber due to not constructing them.

Chemical Division/Carbon Plant:

#65, 66 and 69 No. 2 Activation Kiln

#67, 68 and 69 No. 3 Activation Kiln

#70 No. 1 Kiln (Dryer)

#70-74 Conveying/Screening/Grinding Mill exhausting through the Dustex and/or Wheelabrator baghouses.

#55 WVIS Dryer

#80, #82 Extruder Dryer and Extruder Kilns

Note that the 1988 NSR permit stack height requirements no longer apply to the following: The #57 Coal Screening/Granular Preparation because they have been removed.

The stack height requirements in this condition shall not apply to any process that is not going to be operated or to any emission point if its emissions are eliminated. This includes eliminating slaker emissions by use of Dorr Oliver cold water spray condenser or equivalent on a slaker.

(9 VAC 5-80-110, 9 VAC 5-30-30, 9 VAC 5-80-1100, and Condition I-45 of the 10/12/88 Permit)

**B. Monitoring**

1. **Ambient SO<sub>2</sub> Monitor** - Meadwestvaco shall install and operate a continuous SO<sub>2</sub> ambient monitor, at a location agreed upon with the West Central Regional Office, until use of RTDM modeling using on-site meteorological data is approved by EPA, or compliance with the SO<sub>2</sub> ambient standards is demonstrated by an EPA approved alternate model. Records are to be maintained at the source, and copies supplied to the VDEQ West Central Regional Office quarterly. Details of ambient monitoring, including measuring methods and quality assurance, shall be arranged with the Director, West Central Regional Office.

(9 VAC 5-80-110, 9 VAC 5-80-1700, 9 VAC 5-170-160, and Condition I-41 of the 10/12/88 Permit)

2. **CEMS** -All continuous monitoring systems required for equipment installed or modified after January 1, 2004, shall be installed and operational prior to conducting initial performance tests. Performance evaluations of the continuous monitoring system shall take place during the performance tests under 9 VAC 5-50-30 or within thirty (30) days thereafter. Two (2) copies of the performance evaluations report shall be submitted to the Director, West Central Region within forty-five (45) days of said evaluation. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device.

(9 VAC 5-80-110, 9 VAC 5-50-40, and Condition 26 of the 11/3/03 Permit)

3. **COMS** -A continuous opacity monitoring system may be used to satisfy visible emission initial performance compliance in lieu of 40CFR 60 Appendix A Method 9. Reported test data to include averages of all six (6) minute continuous periods.  
(9 VAC 5-80-110, 9 VAC 5-50-40, and Condition 27 of the 11/3/03 Permit)
4. **CEMS/COMS Quality Control Program** – The CEMS and COMS shall meet all applicable requirements, including required quality control requirements: Reference NSPS 40 CFR 60.13 (Monitoring); 40 CFR 60 Appendix B (Monitoring Performance Specifications); 40 CFR 60 Appendix F (Monitoring Quality Assurance Procedures); 40 CFR 63.8 C Monitoring)  
(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-50-410, 9 VAC 5-60-100, and Condition 102 of the 11/3/03 Permit)
5. **Opacity Monitoring** – Upon request of VDEQ, the permittee shall conduct a weekly observation of other potential sources of visible emissions not specifically cited in this permit using a brief modified 40 CFR 60 Appendix A Method 22 evaluation (excludes condensed water vapor). If any visible emission is observed, the visible emission condition shall be addressed as soon as possible, such that no visible emissions are observable, and recorded or a 40 CFR 60 Appendix A Method 9 evaluation shall be performed to determine if the opacity source is in compliance with the conditions of this permit. The Method 9 evaluation shall be conducted for at least six (6) minutes. If any of these six (6) minute averages exceed the unit's opacity limitation, a visible emissions evaluation (VEE) shall be conducted on these emissions for at least 3 six minute periods (at least 18 minutes). The visible emission observations, VEE results, and corrective actions shall be recorded. If a source does not operate during a weekly period when daylight or weather would allow an acceptable visible observation, this shall be noted on the records of this monitoring activity. If visible emissions observations conducted for a particular source during twelve (12) consecutive weeks show no visible emissions, the permittee with VDEQ concurrence, may reduce the monitoring frequency to once per month for that source. Any time the monthly visible emissions inspection shows observable opacity, or when requested by VDEQ, the monitoring frequency shall be increased to once per week.  
(9 VAC 5-80-110)

### C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Emission measurements or estimates of the monthly and annual plantwide emissions of particulate matter, PM-10, nitrogen oxides, sulfur dioxide, carbon monoxide, volatile organic compounds, and total reduced sulfur, using emission factors acceptable to VDEQ. Details of particular emission points not otherwise specified may be requested by VDEQ to clarify the estimation process. Annual emissions shall be calculated monthly as the sum of the previous consecutive 12 month period.

2. Continuous monitoring system calibrations and calibration checks.
3. Records as required in accordance with 40 CFR §60.49b, §60.284, and §60.7.
4. Records of operator training related to air pollution control equipment, monitoring devices, and process equipment which affects air emissions.
5. Results of all stack tests, visible emission evaluations and performance evaluations.
6. Written operating procedures related to air pollution control equipment, monitoring devices, and process equipment which affects air emissions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, 9 VAC 5-50-50, Condition II-6 of the 10/12/88 Permit, and/or Condition 105 of the 11/3/03 Permit)

#### **D. Testing**

1. **Test/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided, when requested, at the appropriate locations or in accordance with the applicable performance specification (ref. 40 CFR Part 60, Appendix B).  
(9 VAC 5-80-110, 9 VAC 5-50-30, Condition II-4 of the 10/12/88 Permit, and Condition 28 of the 11/3/03 Permit)
2. **VEE Alternative** - A continuous opacity monitoring system may be used to satisfy the visible emission evaluation requirement in lieu of 40 CFR Part 60, Appendix A, Method 9. The reported test data shall include averages of all six minute continuous periods within the test period and within the duration of any mass emission performance tests being conducted. It is the responsibility of the permittee to demonstrate that the monitoring system has met the requirements of the applicable performance evaluation, that the monitoring system has been properly maintained and operated, and that the resulting data has not been altered in any way. If monitoring system data indicates compliance for a period during which Method 9 data indicates non-compliance, the Method 9 data shall be used to determine compliance with the visible emission limit.  
(9 VAC 5-80-110, 9 VAC 5-50-20, and Condition 91 of the 11/3/03 Permit)
3. **CEMS/COMS Performance Evaluations** - Performance evaluations of the continuous monitoring systems shall be conducted in accordance with 40 CFR Part 60, Appendix B, and shall take place during the performance tests under 9 VAC 5-50-30 or within 30 days thereafter. Two copies of the performance evaluations report shall be submitted to the Director, West Central Regional Office within 45 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30 day notification, prior to the demonstration of continuous monitoring system's

performance, and subsequent notifications shall be submitted to the Director, West Central Regional Office.

(9 VAC 5-80-110, 9 VAC 5-50-40, and Condition 92 of the 11/3/03 Permit)

4. If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - The test method is subject to DEQ approval at the time of the test (except Method 9 - 40 CFR Part 60, Appendix A)
Various Pollutants	Method subject to DEQ approval at the time of testing.
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## E. Reporting

1. **Reports - MACT, NSPS, and CEMS/COMS** – Reports related to New Source Performance Standards (NSPS), Hazardous Air Pollutant Monitoring (MACT), or Continuous Emission or Opacity Monitoring Systems (CEMS/COMS) shall meet the applicable requirements of the applicable MACT, NSPS, or Virginia Regulation for the Control and Abatement of Air Pollution at the time of the report. Reporting periods shall be each calendar quarter and/or each calendar semi-annual period, as appropriate. A mixture of reporting periods is possible. At the time of issuance of this permit, (a) CEMS/COMS reports are required quarterly no later than 30 days after each calendar quarter ends, and (b) MACT reports are required semi-annually no later than 30 days after each calendar semi-annual period ends. Details of quarterly and semi-annual reports may change based on the applicable regulation and as arranged with the Director, West Central Regional Office at the time of each report. Specific details of the reports are to be arranged with the Director, West Central Regional Office. Each report shall be sent to the Virginia Department of Environmental Quality at the address below and copies of the reports, as applicable, shall be sent to the United States Environmental Protection Agency at the address below:

**Virginia Department of Environmental Quality**

**West Central Regional Office**

**Attn:** Air Compliance Manager

3019 Peters Creek Road

Roanoke, VA 24019

Air Protection Division (3AP00)

**U.S. Environmental Protection Agency**

Region III

1650 Arch Street

Philadelphia, PA 19103-2029

**Attn:** (As appropriate for EPA)

Coordinator for 40 CFR 63 Subpart S (Pulp Mill MACT)

Coordinator for 40 CFR 63 Subpart MM (Kraft Pulp Mill Recovery MACT)

Coordinator for 40 CFR 63 Subpart DDDDD (Industrial Boiler MACT)

Coordinator for 40 CFR 60 Subpart BB (Kraft Pulp Mill NSPS)

Coordinator for 40 CFR 60 Subpart Db (Industrial Boiler NSPS)

(9 VAC 5-80-110)

2. **Initial Notifications** - The permittee shall furnish written notification of the following to the Director, West Central Regional Office:
- a. The actual date on which modification or construction of the equipment commenced within 10 days after such date.
  - b. The anticipated start-up date of modified or constructed equipment postmarked not more than 60 days nor less than 30 days prior to such date.
  - c. The actual start-up date of the modified or constructed equipment within 10 days after such date.
  - d. The anticipated date of continuous monitoring system performance evaluations postmarked not less than 30 days prior to such date.
  - e. The intention to use continuous opacity monitoring system data results to demonstrate compliance with the applicable visible emission limit during a performance test in lieu of Reference Method 9 (reference 40 CFR Part 60, Appendix A), postmarked not less than 30 days prior to the date of the performance test.
  - f. The anticipated date of performance tests of modified or constructed equipment postmarked at least 30 days prior to such date.
  - g. Written notifications in accordance with 40 CFR §60.49b, §60.7, and §60.8 for No. 11 Boiler.
  - h. Written notifications in accordance with 40 CFR §60.7 and 40 CFR §60.8 for equipment modified or constructed in this permit and subject to New Source Performance Standards for Kraft Pulp Mills.

When applicable, copies of the written notification referenced in items a through h above and pertaining to equipment or processes subject to an applicable NSPS or MACT are to be sent to USEPA at the address in Condition 1 of this section. (9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 103 of the 11/3/03 Permit)

3. **Notification for Control Equipment Maintenance** - The permittee shall furnish notification to the Director, West Central Regional Office of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:
- a. Identification of the specific process to be taken out of service, as well as its location, and registration number;
  - b. The expected length of time that the air pollution control equipment will be out of service;

- c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;
- d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-80-110, 9 VAC 5-20-180, and Condition 104 of the 11/3/03 Permit)

4. **Reports for Continuous Emission Monitoring Systems** - The permittee shall furnish written reports quarterly to the Air Compliance Manager, West Central Regional Office of excess emissions from any process monitored by a continuous emissions monitoring system (COMS/CEMS) on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:

- a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

(9 VAC 5-80-110, 9 VAC 5-50-50, 9 VAC 5-40-1000, and Condition 106 of the 11/3/03 Permit)

5. **Reports (Other)** - The permittee shall submit fuel quality, excess emission, continuous monitoring, compliance, performance, and other reports, as required in accordance with 40 CFR §60.49b, §60.284, §60.7, and §60.8 to the Director, West Central Region. If applicable, copies of reports required above shall be sent to USEPA at the address in Condition 1 of this section.

(9 VAC 5-80-110, 9 VAC 5-50-50, and Condition 107 of the 11/3/03 Permit)

Other reporting requirements for this section are satisfied by the recordkeeping requirements in this section and the recordkeeping and reporting requirements of the General Conditions section.



## **X. Insignificant Emission Units**

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
WYD001	Chip Storage	9 VAC 5-80-720B	PM10	NA
WYD002	Sawdust Storage	9 VAC 5-80-720B	PM10	NA
WYD007	Bark Storage	9 VAC 5-80-720B	PM10	NA
WYD008	Woodchip Conveyors	9 VAC 5-80-720B	PM10	NA
WYD009	Bark Conveyors	9 VAC 5-80-720B	PM10	NA
WYD010	Chip Silos	9 VAC 5-80-720B	PM10	NA
WYD011	Purchased Chip Handling	9 VAC 5-80-720B	PM10	NA
UPM001	Digester Chip Conveyors	9 VAC 5-80-720B	PM10	NA
UPM041	Rejects and Reclaim System	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
UPM043	Pulp Mill Additives	9 VAC 5-80-720B	HAPS	NA
UPM044	Unbleached Pulp Mill Hydrapulper	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
BPM007	Bleach Room White Water System	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
BPM008	Chlorine Handling System	9 VAC 5-80-720B	Chlorine	NA
BPM009	Peroxide Storage	9 VAC 5-80-720B	HAPS	NA
BPM010	Caustic System	9 VAC 5-80-720B	HAPS	NA
CLO004	Sulfuric Acid Storage	9 VAC 5-80-720B	HAPS	NA
CLO005	Chlorine Dioxide Storage	9 VAC 5-80-720B	HAPS	NA
CLO006	Chlorate Storage	9 VAC 5-80-720B	HAPS	NA
FPP001	Fiber Plant	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
FPP002	Fiber Conveyors	9 VAC 5-80-720B	PM10	NA
FPP003	Fiber Plant Additives	9 VAC 5-80-720B	HAPS	NA
NCR001	Southside Coating Room	9 VAC 5-80-720B	HAPS	NA
OCR001	Northside Coating Room	9 VAC 5-80-720B	HAPS	NA
PM1004	No. 1 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM1005	No. 1 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM1006	No. 1 Paper Machine White Water System	9 VAC 5-80-720B	HAPS	NA
PM2004	No. 2 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM2005	No. 2 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM2006	No. 2 Paper Machine White Water System	9 VAC 5-80-720B	HAPS	NA

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PM5004	No. 5 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM5005	No. 5 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM5006	No. 5 Paper Machine White Water System	9 VAC 5-80-720B	HAPS	NA
PM6004	No. 6 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM6005	No. 6 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM6006	No. 6 Paper Machine Water System	9 VAC 5-80-720B	HAPS	NA
PM8004	No. 8 Paper Machine Additives	9 VAC 5-80-720B	HAPS	NA
PM8005	No. 8 Paper Machine Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
PM8006	No. 8 Paper Machine White Water System	9 VAC 5-80-720B	HAPS	NA
PPP001	Purchased Pulp Pulper	9 VAC 5-80-720B	VOC/HAPs	NA
PPP003	Purchased Pulp White Water System	9 VAC 5-80-720B	VOC/HAPs	NA
PWR008	Power House Fuel Oil Storage	9 VAC 5-80-720B	VOC	NA
PWR009	Flyash Handling System	9 VAC 5-80-720B	PM10	NA
PWR010	Power House Coal Handling System	9 VAC 5-80-720B	PM10	NA
PWR011	Woodwaste Handling	9 VAC 5-80-720B	PM10	NA
PWR012	Power House Lube Reservoirs	9 VAC 5-80-720B	VOC	NA
REC031	Green Liquor Storage	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
REC033	No. 12 Slaker	9 VAC 5-80-720B	PM10/VOC/HAPs/TRS/H2S	NA
REC038	White Liquor Storage	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
REC042	Cone Tank	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
REC053	Lime Mud And Dregs Handling (Dry)	9 VAC 5-80-720B	PM10	NA
REC070	Recovery Fuel Oil Storage	9 VAC 5-80-720B	VOC	NA
REC071	Recovery Additives	9 VAC 5-80-720B	HAPS	NA
STK001	Starch Silos	9 VAC 5-80-720B	PM10	NA
STK002	Starch Kitchen	9 VAC 5-80-720B	HAPS	NA
WTP005	Final Clarifiers	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
WTP006	Sludge Thickener	9 VAC 5-80-720B	VOC/HAPs/TRS/H2S	NA
WTP008	Slaked Lime Tank	9 VAC 5-80-720B	PM10/VOC/HAPs/TRS/H2S	NA
WTP009	Waste Treatment Plant Additives	9 VAC 5-80-720B	HAPS	NA

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
WTP010	Sewer Sumps	9 VAC 5-80-720B	VOC/HAPs/H2S/TRS	NA
WVC001	Research Activities	NA	NA	NA
WVC001	Parts Washers	9 VAC 5-80-720B	VOC	NA
WVC001	Paper Loading/Packaging	9 VAC 5-80-720B	PM10	NA
WVC006	Oil/Diesel Storage	9 VAC 5-80-720B	VOC	NA
EMG001	Temporary Generators for emergency power	9 VAC 5-80-720B	PM10, NOx, SO2, CO	NA
EMG002	Temporary Compressors for emergency compressed air	9 VAC 5-80-720B	PM10, NOx, SO2, CO	NA
EMG003	Portable pumps	9 VAC 5-80-720B	PM10, NOx, SO2, CO	NA

These insignificant emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

## **XI. Permit Shield & Inapplicable/Streamlined Requirements**

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility for the cited reasons:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart D, Db	NSPS for Boilers	Boilers 6-10 are not subject to this regulation based on date of construction.
40 CFR 60 Subpart BB	NSPS for Pulp Mills	Recovery Furnace No. 1 and its smelt dissolving tanks, A-Line Brownstock Washers, C-Line Brownstock Washers, and No. 1 Lime Kiln, prior to proposed modification, are not subject to this regulation based on date of construction.
40 CFR 63 Subpart S	MACT for Pulp Mills	Neither chlorine dioxide plant is included in the specific definition of affected source for this regulation.
MACT 40 CFR 63 Subpart JJJJ	MACT for Paper and Other Web Coating	This MACT has been determined to not be applicable to this facility per 11-19-03 EPA interpretation from Michael S. Alushin to the American Forest & Paper Association, due to being on-line coating on paper making machines.

and the following requirements which have been streamlined for the cited reasons:

Citation	Title of Citation	Description of Applicability
9 VAC 5-50-80	Opacity requirement	Boiler No. 11, Recovery Furnace No. 2 Smelt Dissolving Tank, and all lime bins and waste gas incinerators have more stringent limits as NSR permit BACT requirements
9 VAC 5-40-1660	Standards for Pulp Mills	Numerous pieces of equipment have more stringent standards due to NSR permit BACT limits, NSPS BB limits, or MACTs S and MM limits. Details are in the statement of basis.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
 (9 VAC 5-80-140)

## **XII. General Conditions**

### **A. Federal Enforceability**

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

### **B. Permit Expiration**

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C & F, 9 VAC 5-80-110 D & 9 VAC 5-80-170 B)

### C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place as defined in the permit, and time of sampling or measurements.
  - b. The date(s) analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G. (Note that much of the recordkeeping required by this permit also serves as required periodic monitoring to determine emissions compliance and therefore needs to be addressed in the periodic reports.) The details of the reports are to be arranged with the Director, West Central Regional Office. The reports shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

d. The report shall be sent to the following address:

Director, West Central Regional Office  
Attn: Air Compliance Manager  
Virginia DEQ  
3019 Peters Creek Road  
Roanoke, VA 24019

(9 VAC 5-80-110 F)

#### **D. Annual Compliance Certification**

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and to DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

This annual compliance certification shall be sent to the following addresses:

Director, West Central Regional Office  
ATTN: Air Compliance Manager  
Virginia DEQ  
3019 Peters Creek Road  
Roanoke, VA 24019

Clean Air Act Title V Compliance Certification (3AP00)  
U. S. Environmental Protection Agency, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

#### **E. Permit Deviation Reporting**

The permittee shall notify the Director, West Central Regional Office, within four (4) daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XII.C.3 of this permit.  
(9 VAC 5-80-110 F.2 & 9 VAC 5-80-250)

#### **F. Failure/Malfunction Reporting**

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, West Central Regional Office, by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, West Central Regional Office.

1. The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the two week written notification.
2. The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:



- a. Boilers 1-9 (PWR006, PWR007, PWR008, & PWR009): sulfur dioxide, opacity
  - b. Boiler 11 (PWR011): nitrogen oxides and either carbon monoxide or oxygen
  - c. Lime Kiln No.1 (REC045): total reduced sulfur and oxygen
  - d. Lime Kiln No.2 (REC047): total reduced sulfur, oxygen and opacity
  - e. Recovery Furnace No. 1 (REC001): total reduced sulfur, oxygen and opacity ( or approved alternative)
  - f. Recovery Furnace No. 2 (REC010): total reduced sulfur, oxygen and opacity
3. Each owner required to install a continuous monitoring system subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable emission standard) to the board for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:
    - a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B 6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
    - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
    - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
    - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.
  4. All emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.

(9 VAC 5-20-180 C, 9 VAC 5-40-50, 9 VAC 5-50-50 & 9 VAC 5-80-250)

#### **G. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility

including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E, 9 VAC 5-40-20 E)

#### **H. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.
  - c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.
  - d. The permittee notified the board of the malfunction within two working days following the time when the emissions limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. The notice fulfills the requirement of 9 VAC 5-80-110 F.2. b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

## **I. Fugitive Dust Emission Standards**

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 & 9 VAC 5-50-90)

## **J. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

## **K. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

## **L. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

**M. Permit Modification**

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-190 and 9 VAC 5-80-260)

**N. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

**O. Duty to Submit Information**

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9 VAC 5-80-110 G.6)
2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G. (9 VAC 5-80-110 K.1)

**P. Duty to Pay Permit Fees**

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. (9 VAC 5-80-110 H & 9 VAC 5-80-340 C)

**Q. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110 J)

**R. Inspection and Entry Requirements**

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

**S. Reopening For Cause**

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

**T. Permit Availability**

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

#### **U. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.  
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

#### **V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.  
(9 VAC 5-80-190 C & 9 VAC 5-80-260)

#### **W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.  
(9 VAC 5-80-80 E)

#### **X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(40 CFR Part 82, Subparts A-F)

#### **Y. Asbestos Requirements**

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40

CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).  
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

**Z. Accidental Release Prevention**

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(40 CFR Part 68)

**AA. Changes to Permits for Emissions Trading**

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9 VAC 5-80-110 I)

**BB. Emissions Trading**

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

### **XIII. NO<sub>x</sub> Budget Trading Program Requirements**

#### **A. NO<sub>x</sub> Budget Permit General Conditions**

1. A review of the air emission units included in this permit approval has determined that the equipment listed in the following table meets the definition of a NO<sub>x</sub> Budget Unit and falls subject to the NO<sub>x</sub> Budget emission limitations under 9 VAC 5-140-40 or for opt-in sources 9 VAC 5-140-800. As required by 9 VAC 5-140-200 A, each NO<sub>x</sub> Budget source is required to have a federally enforceable permit. This section of the document represents the NO<sub>x</sub> Budget permit.  
(9 VAC 5-140-40)
2. The NO<sub>x</sub> Budget permit will be administrated by the VADEQ under the authority of 9 VAC 5-80-50 et seq., and 9 VAC 5-140-10 et seq.  
(9 VAC 5-140-200 A)
3. The following air emission units have been determined to meet the applicability requirements as provided in 9 VAC 5-140-40 A.1 and A.2. Units that do not meet this definition, are not defined as 25-Ton Exemption Units and are not permanently shutdown can be included in the NO<sub>x</sub> Budget Trading program as “opt-in” air emission sources.  
(9 VAC 5-140-40 A)

<b>Facility NO<sub>x</sub> Budget Units</b>				
<b>Facility Unit ID</b>	<b>Unit NATS Code</b>	<b>Unit Name and description</b>	<b>Maximum Heat Capacity (MMBtu/hr)</b>	<b>Maximum Generation Capacity (megawatts)</b>
001(PWR006)	050900000001	PWRBLR #6	550	NA
002(PWR007)	050900000002	PWRBLR #7	440	NA
003(PWR008)	050900000003	PWRBLR #8	580	NA
004(PWR009)	050900000004	PWRBLR #9	807	NA
005(PWR010)	050900000005	PWRBLR #10	330	NA
011(PWR011)	050900000011	PWRBLR #11	425	NA

4. This NO<sub>x</sub> Budget permit will become effective on May 31, 2004.  
(9 VAC 5-140-240.1)



## B. Standard Requirements

### 1. Continuous Monitoring requirements.

- a. The owners and operators and, to the extent applicable, the NO<sub>x</sub> authorized account representative of each NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit at the source shall comply with the applicable monitoring requirements of 9 VAC 5-140-700 et seq.  
(9 VAC 5-140-60 B.1)
- b. The emissions measurements recorded and reported in accordance with the applicable sections of 9 VAC 5-140-700 et seq., 40 CFR 75 Subpart H, and 40 CFR 96 Subpart H shall be used to determine compliance by the unit with the NO<sub>x</sub> Budget emissions limitations in this section. The following approved methods will be used to calculate NO<sub>x</sub> Control Period and annual emission rates:  
(9 VAC 5-140-60 B.2)

Pollutant or Stack Parameter	CEM Monitoring Methods
NO <sub>x</sub> and NO <sub>x</sub> related.	As referenced by NO <sub>x</sub> Budget Trading Program Regulations (reference 9 VAC 5-140-700 et seq., 40 CFR 96 Subpart H, and 40 CFR 75 Subpart H)

### 2. Nitrogen oxides requirements.

- a. The owners and operators of each NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit at the source shall hold NO<sub>x</sub> allowances available for compliance deductions under 9 VAC 5-140-540 A, B, E, or F, as of the NO<sub>x</sub> allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO<sub>x</sub> emissions for the control period from the unit, as determined in accordance with Article 8 (9 VAC 5-140-700 et seq.), plus any amount necessary to account for actual utilization under 9 VAC 5-140-420 E for the control period or to account for excess emissions for a prior control period under 9 VAC 5-140-540 D or to account for withdrawal from the NO<sub>x</sub> Budget Trading Program, or a change in regulatory status, of a NO<sub>x</sub> Budget opt-in unit under 9 VAC 5-140-860 or 9 VAC 5-140-870.  
(9 VAC 5-140-60 C.1)
- b. Each ton of nitrogen oxides emitted in excess of the NO<sub>x</sub> Budget emissions limitation shall constitute a separate violation of the Clean Air Act, and applicable Virginia Air Pollution Control law.  
(9 VAC 5-140-60 C.2)

- c. A NO<sub>x</sub> Budget unit shall be subject to the requirements under 9 VAC 5-140-60 C.1 starting on the later of May 31, 2004 or the date on which the unit commences operation.  
(9 VAC 5-140-60 C.3)
  - d. NO<sub>x</sub> allowances shall be held in, deducted from, or transferred among NO<sub>x</sub> Allowance Tracking System accounts in accordance with 9 VAC 5-140-400 et seq., 9 VAC 5-140-500 et seq., 9 VAC 5-140-600 et seq., and 9 VAC 5-140-800 et seq.  
(9 VAC 5-140-60 C.4)
  - e. A NO<sub>x</sub> allowance shall not be deducted, in order to comply with the requirements under 9 VAC 5-140-60 C.1 for a control period in a year prior to the year for which the NO<sub>x</sub> allowance was allocated.  
(9 VAC 5-140-60 C.5)
  - f. A NO<sub>x</sub> allowance allocated by the permitting authority or the administrator under the NO<sub>x</sub> Budget Trading Program is a limited authorization to emit one ton of nitrogen oxides in accordance with the NO<sub>x</sub> Budget Trading Program. No provision of the NO<sub>x</sub> Budget Trading Program, the NO<sub>x</sub> Budget permit application, the NO<sub>x</sub> Budget permit, or an exemption under 9 VAC 5-140-50 and no provision of law shall be construed to limit the authority of the United States or the State to terminate or limit such authorization.  
(9 VAC 5-140-60 C.6)
  - g. A NO<sub>x</sub> allowance allocated by the permitting authority or the administrator under the NO<sub>x</sub> Budget Trading Program does not constitute a property right.  
(9 VAC 5-140-60 C.7)
  - h. Upon recordation by the administrator under 9 VAC 5-140-500 et seq., 9 VAC 5-140-600 et seq., or 9 VAC 5-140-800 et seq., every allocation, transfer, or deduction of a NO<sub>x</sub> allowance to or from a NO<sub>x</sub> Budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NO<sub>x</sub> Budget permit of the NO<sub>x</sub> Budget unit by operation of law without any further review.  
(9 VAC 5-140-60 C.8)
3. Excess emissions requirements.
- a. The owners and operators of a NO<sub>x</sub> Budget unit that has excess emissions in any control period shall:
    - 1. Surrender the NO<sub>x</sub> allowances required for deduction under 9 VAC 5-140-540 D 1; and

2. Pay any fine, penalty, or assessment or comply with any other remedy imposed under 9 VAC 5-140-540 D 3.  
(9 VAC 5-140-60 D)

**C. Recordkeeping and Reporting Requirements.**

The following requirements concerning recordkeeping and reporting shall apply:

1. Unless otherwise provided, the owners and operators of the NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit at the source shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the permitting authority or the administrator.  
(9 VAC 5-140-60 E.1)
  - a. The account certificate of representation for the NO<sub>x</sub> authorized account representative for the source and each NO<sub>x</sub> Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 9 VAC 5-140-130; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate of representation changing the NO<sub>x</sub> authorized account representative.  
(9 VAC 5-140-60 E.1)
  - b. All emissions monitoring information, in accordance with 9 VAC 5-140-700 et seq. of this part; provided that to the extent that 9 VAC 5-140-700 et seq. provides for a three-year period for recordkeeping, the three-year period shall apply.  
(9 VAC 5-140-60 E.1)
  - c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO<sub>x</sub> Budget Trading Program.  
(9 VAC 5-140-60 E.1)
  - d. Copies of all documents used to complete a NO<sub>x</sub> Budget permit application and any other submission under the NO<sub>x</sub> Budget Trading Program or to demonstrate compliance with the requirements of the NO<sub>x</sub> Budget Trading Program.  
(9 VAC 5-140-60 E.1)

2. The NO<sub>x</sub> authorized account representative of a NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit at the source shall submit the reports and compliance certifications required under the NO<sub>x</sub> Budget Trading Program, including those under 9 VAC 5-140-300 et seq., 9 VAC 5-140-700 et seq., or 9 VAC 5-140-800 et seq. (9 VAC 5-140-60 E.2)

#### **D. Testing for NO<sub>x</sub> Budget Trading Program CEM Certification**

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports for this testing shall be provided at the appropriate locations. (9 VAC 5-40-30, 9 VAC 5-50-30, and 9 VAC 5-140-710)

#### **E. Liability**

1. Any person who knowingly violates any requirement or prohibition of the NO<sub>x</sub> Budget Trading Program, a NO<sub>x</sub> Budget permit, or an exemption under 9 VAC 5-140-50 shall be subject to enforcement pursuant to the Air Pollution Control Law of Virginia or applicable Federal law. (9 VAC 5-140-60 F.1)
2. Any person who knowingly makes a false material statement in any record, submission, or report under the NO<sub>x</sub> Budget Trading Program shall be subject to criminal enforcement pursuant to the Air Pollution Control Law of Virginia or applicable Federal law. (9 VAC 5-140-60 F.2)
3. No permit revision shall excuse any violation of the requirements of the NO<sub>x</sub> Budget Trading Program that occurs prior to the date that the revision takes effect. (9 VAC 5-140-60 F.3)
4. Each NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit shall meet the requirements of the NO<sub>x</sub> Budget Trading Program. (9 VAC 5-140-60 F.4)
5. Any provision of the NO<sub>x</sub> Budget Trading Program that applies to a NO<sub>x</sub> Budget source (including a provision applicable to the NO<sub>x</sub> authorized account representative of a NO<sub>x</sub> Budget source) shall also apply to the owners and operators of such source and of the NO<sub>x</sub> Budget units at the source. (9 VAC 5-140-60 F.5)
6. Any provision of the NO<sub>x</sub> Budget Trading Program that applies to a NO<sub>x</sub> Budget unit (including a provision applicable to the NO<sub>x</sub> authorized account representative of a NO<sub>x</sub> budget unit) shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under Article 8 (9 VAC 5-140-700 et seq.), the owners and operators and the NO<sub>x</sub> authorized account representative of one NO<sub>x</sub> Budget unit shall not be liable for any violation by

any other NO<sub>x</sub> Budget unit of which they are not owners or operators or the NO<sub>x</sub> authorized account representative and that is located at a source of which they are not owners or operators or the NO<sub>x</sub> authorized account representative.  
(9 VAC 5-140-60 F.6)

#### **F. NO<sub>x</sub> Budget Trading Program Effect on Other Authorities.**

No provision of the NO<sub>x</sub> Budget Trading Program, a NO<sub>x</sub> Budget permit application, a NO<sub>x</sub> Budget permit, or an exemption under 9 VAC 5-140-50 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO<sub>x</sub> authorized account representative of a NO<sub>x</sub> Budget source or NO<sub>x</sub> Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.  
(9 VAC 5-140-60 G)

### **XIV. State-Only Enforceable Requirements**

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

1. Odor: The New Source Review permits for this facility have no conditions related to odor.
2. State toxics rule: Both New Source Review permits for this facility have conditions related to state toxics that are located in sections that are not federally enforceable and are not included in this operating permit. These NSR permits are included as appendices to the statement of basis.

(9 VAC 5-80-110 N and 9 VAC 5-80-300)

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